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City of Greater Sudbury

Pandemic Influenza Plan

Emergency Response Plan
Annex A

For Public Release

Version 1.1

Revised November 2006

Acknowledgements

The City of Greater Sudbury would like to thank and acknowledge the following organizations for their contribution to our Pandemic Plan:

The City of Metropolitan Toronto Public Health (TPH)

United Kingdom Department of Health

The World Health Organization (WHO)

Ontario Ministry of Health and Long-Term Care (MOHLTC)

The Public Health Agency of Canada (PHAC)

Infectious Disease Control Branch of MOHLTC

Emergency Management Ontario (EMO)

Sudbury & District Health Unit (SDHU)

Provincial Infectious Disease Advisory Committee (PIDAC)

Centers for Disease Control and Prevention (CDC)

Pandemic Clinical Care Committee (PC3)

Greater Sudbury Emergency Management Planning Committee (GSEMPC)

Canadian Paediatric Society (CPS)

Canadian Red Cross - Sudbury

The Salvation Army - Sudbury

City of Greater Sudbury

** This list represents our best efforts to keep track of all contributing participants. We extend our thanks to any participant who may have been missed.*

Message from Tim P. Beadman

Director of Emergency Management, City of Greater Sudbury

The key question when thinking about an influenza pandemic is not 'if", but 'when'. Experts and public alike can agree on the inevitability. But with such an event, by definition, affecting an exceptionally high proportion of the population, only history can help us understand it's potential effects. Fortunately there have been great strides in understanding the importance of prevention, early detection and controlling the spread of influenza since the 1968 Hong Kong pandemic, and more recently with the SARS (Severe Acute Respiratory Syndrome) emergency in 2003.

Of paramount concern for any community should be education. As a city we must be prepared to rise to the challenge of an influenza pandemic, when and if we are ever put to the test. In this, the Sudbury & District Health Unit (SDHU) has taken a lead role. Planning for such an event has also involved forging relationships and partnerships with varied sectors of our community through the creation of the Pandemic Clinical Care Committee. Those involved in many aspects of maintaining community health have worked alongside emergency planning, social services providers, and the volunteer and business communities to put their best efforts into ensuring our preparedness.

In the event of an influenza pandemic, the work of many dedicated and valuable members of our community will largely go unnoticed. I would like to take this opportunity to express my appreciation for the united efforts of all who participated in the creation of the Sudbury Pandemic Influenza Plan. As planning continues at the Federal, Provincial and Local levels it will continue to be a work in progress, but it is an important first step. Now the challenge for every member of our community will be to continue the commitment to self-preparedness.

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Chapter 1

Pandemic Influenza Information

Revised November 2006

1.0 Introduction

Influenza is a common virus that is present in our community primarily on a seasonal basis. A pandemic is a worldwide epidemic. Influenza pandemics have the capacity to cause serious mortality and morbidity as the population has little or no immunity to the circulating strains of influenza. A pandemic of influenza may constitute a global health emergency. In recent history, influenza pandemics have occurred approximately every 35 - 40 years. Although there is no way to predict when the next influenza pandemic will occur, many health experts believe that it is overdue and planning should take place to deal with such an emergency.

This chapter provides an overview of information about influenza, pandemics and the current concern regarding Avian Influenza in other parts of the world. The World Health Organization Pandemic Phases are reviewed, as well as the scope and impact of illness that is expected to occur in the City of Greater Sudbury.

1.1 About Influenza

Influenza, the flu, is a highly contagious and common respiratory illness caused by a virus. There are three known types of influenza virus groups: A, B and C but type C rarely causes human illness only influenza A is associated with pandemics. Influenza can cause mild to severe illness.

The flu usually starts suddenly. Common symptoms include: fever (usually high), headache, tiredness (can be extreme), cough, sore throat, runny or stuffy nose, body aches and nausea, vomiting and diarrhea (in children).

A lot of different illnesses, including the common cold, can have similar symptoms. While most healthy people recover from the flu without complications, some people such as; older people, young children, and people with certain health conditions are at high risk for serious complications from the flu.

A highly infectious disease, influenza is directly transmitted from person to person. The virus is primarily spread from people infected with the flu via:

Droplet spread: droplets of their respiratory secretions come into contact with mucous membranes of the mouth, nose and possibly eyes of another person, i.e., cough or sneeze

Contact spread: the virus in droplets form can survive and remain viable for transmission:

- 24 to 48 hours on hard non-porous surfaces
- 9 to 12 hours on cloth, paper and tissues
- 5 minutes on hands

The incubation period for influenza is from 1 to 3 days. People with influenza are infectious and able to transmit the virus for up to 24 hours before the onset of symptoms and for up to 7 days after (ie. for 3 to 5 days from onset in adults, and up to 7 days in children). People with influenza tend to shed more viruses in their respiratory secretions in the early stages of the illness. Viral shedding tends to last longer in infants, young children and people with weak or compromised immune systems.

1.2 When does Influenza become a Pandemic?

Strains of influenza are circulating throughout the world all the time. When does a strain become a pandemic? Only influenza A viruses are associated with pandemics. Influenza pandemics arise when ALL four of the following occur:

- a novel influenza A virus develops as a result of an "antigenic shift" in the make-up of its DNA (ie. radical changes in the virus that cause a change in its genetic coding)
- the new virus can spread efficiently from human to human
- the new virus causes serious illness and death
- the population has little or no immunity to the new virus

Since people have little or no immunity to this new strain, it can spread quickly causing outbreaks in one or more countries or worldwide. This is called a pandemic. The exact nature of the pandemic virus (eg, virulence, presentation, periods of incubation, transmissibility and routes of transmission) and illness will not be known until it emerges.

1.3 How often do Influenza Pandemics Occur?

From historical records, we know that a pandemic strain of influenza tends to emerge 3 or 4 times each century.

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

Adopted from:

Department of Health (England "Pandemic Flu: Frequently Asked Questions" October 19, 2005 http://www.dh.gov.uk

1.4 What is the Difference between Seasonal Influenza and Pandemic Influenza?

Seasonal flu	Pandemic flu
Occurs every year (October to April)	Occurred 3 times in the 20th century
Occurs during the winter	It is typically a more serious infection for everyone
For most people it is an unpleasant but not life-threatening infection	Some people will not recover even with medical treatment. Due to the higher severity of illness, there is greater risk of death
The very young, the very old and people with chronic illness are most at risk of serious illness	People of every age may be at risk of serious illness
Vaccine is available in advance	Vaccine will not be available in advance
Annual vaccination is recommended especially for those at risk of serious illness	The whole population will be vaccinated when vaccines becomes available
Antiviral drugs are available to treat those at special risk	Antiviral drugs are likely to be in limited supply and will be used to best effect according to how the disease develops

Adopted from:

Ministry of Health and Long-Term Care "Differences between seasonal or "annual" influenza and the influenza pandemic" Fact Sheet.

1.5 What is Avian Influenza?

Avian Influenza or "bird flu" is a contagious disease of animals, caused by viruses that normally infect only birds and less commonly, pigs. Avian influenza viruses are highly species specific but have on rare occasions crossed the species barrier to infect humans. Infection with avian influenza viruses cause two main forms of disease in domestic poultry, distinguished by low (ruffled feathers, decreased egg production) and high (rapid spread with high mortality) pathogenicity.

The H5N1 subtype that is currently circulating in Asia and parts of Europe is a highly pathogenic form for birds. The subtype has infected humans and resulted in a high mortality rate among known cases. Although rare, there have been instances of human-to-human transmission of H5N1. In addition there is a possibility that if the virus is given enough opportunity it will change to a form that is highly infectious for humans and spread easily from person-to-person. Such a change could mark the start of a pandemic. Current strains of avian influenza will not necessarily become a pandemic strain. The next influenza pandemic could arise from a different influenza virus.

For current information on human cases of avian influenza please refer to the World Health Organization website at: http://www.who.int/csr/disease/avian_influenza/en/index.html

For additional information on avian influenza, refer to the Public Health Agency of Canada website at: http://www.phac-aspc.gc.ca/influenza/#avianflu

1.6 World Health Organization (WHO) Alert Phases

The backbone of pandemic planning is the World Health Organization (WHO) Classification System developed in 1999 and revised in April 2005. The WHO phases are meant to guide planning efforts and are incorporated in the Canadian, Ontario and City of Greater Sudbury plans. The WHO will identify which phase is currently occurring internationally and will declare the beginning of a pandemic. The Public Health Agency of Canada (PHAC) and the Ministry of Health and Long-Term Care will declare the beginning of the pandemic period in Canada and Ontario, respectively.

The following table identifies the WHO Pandemic Phase Model:

WORLD HEALTH ORGANIZATION PANDEMIC PHASES

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

* ***The distinction between Phase 1 and Phase 2 is based on the risk of infection*** *or* ***disease from circulating strains in animals.***

** ***The distinction between phase 3, phase 4 and phase 5 is based on the risk of*** *a* ***pandemic***

1.7 The Health Impact of Pandemic Influences on the City of Greater Sudbury and Catchment area of the Sudbury & District Health Unit

Unlike severe acute respiratory syndrome (SARS), where disease transmission was primarily confined to hospitals and close household contacts, an influenza pandemic will spread quickly throughout the community.

According to the Canadian Pandemic Influenza Plan (CPIP), during a 'normal' influenza epidemic (occurring every winter in North America), an average of 5% to 20% of the public becomes ill.

The highest rates of infection and clinical illness occur in children but serious complications and death occur mainly in the elderly. Pandemic Influenza can lead to as many as 15% to 35% of the population becoming ill, though not at one time. The virus tends to spread in waves that last 6 to 8 weeks, according to the Canadian Pandemic Influenza Plan (CPIP). A common planning scenario is that up to 20% of the population will be infected at some point in the first wave of a pandemic.

Planning for pandemic influenza also involves a range of estimates of morbidity and mortality, based on attack rates of 15% to 35%. When a pandemic begins, epidemiological data will provide more specific information and impact on the City of Greater Sudbury and catchment area of the Sudbury & District Health Unit.

Estimated Direct Health Impact of Pandemic Influenza on the City of Greater Sudbury and catchment area of the Manitoulin and Sudbury District Health Unit

Description	Based on 15% attack rate	Based on 35% attack rate
Clinically ILL	31,000 individuals	79,000 individuals
Require outpatient care	15,733 individuals	36,710 individuals
Require hospitalization	364 individuals	851 individuals
Deaths	86 individuals	200 individuals

**** Communicable Disease Surveillance Unit. Based on population estimates of 300 000 by Age Group and Gender based on the 2001 Census for 2003. Statistics Canada, 2004. # Calculations of most likely minimums and maximums from the Ontario Health Pandemic Influenza Plan 2005.***

These numbers are only rough estimates. The number of cases could be more or less depending on the unique characteristics of the pandemic influenza virus. It is important to realize that people who are not hospitalized could be very ill for one to three weeks. When ill, people will be unable to work, shop for groceries, prepare meals or look after their own children. It is clear that such an outbreak will place huge demands on families, community services and the entire health care system.

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Chapter 2

Goals and Planning Assumptions

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2.0 Goals

The goals of pandemic planning and response in the City of Greater Sudbury are identical to the goals of the provincial and national plans.

- to minimize serious illness and death
- to minimize societal disruption

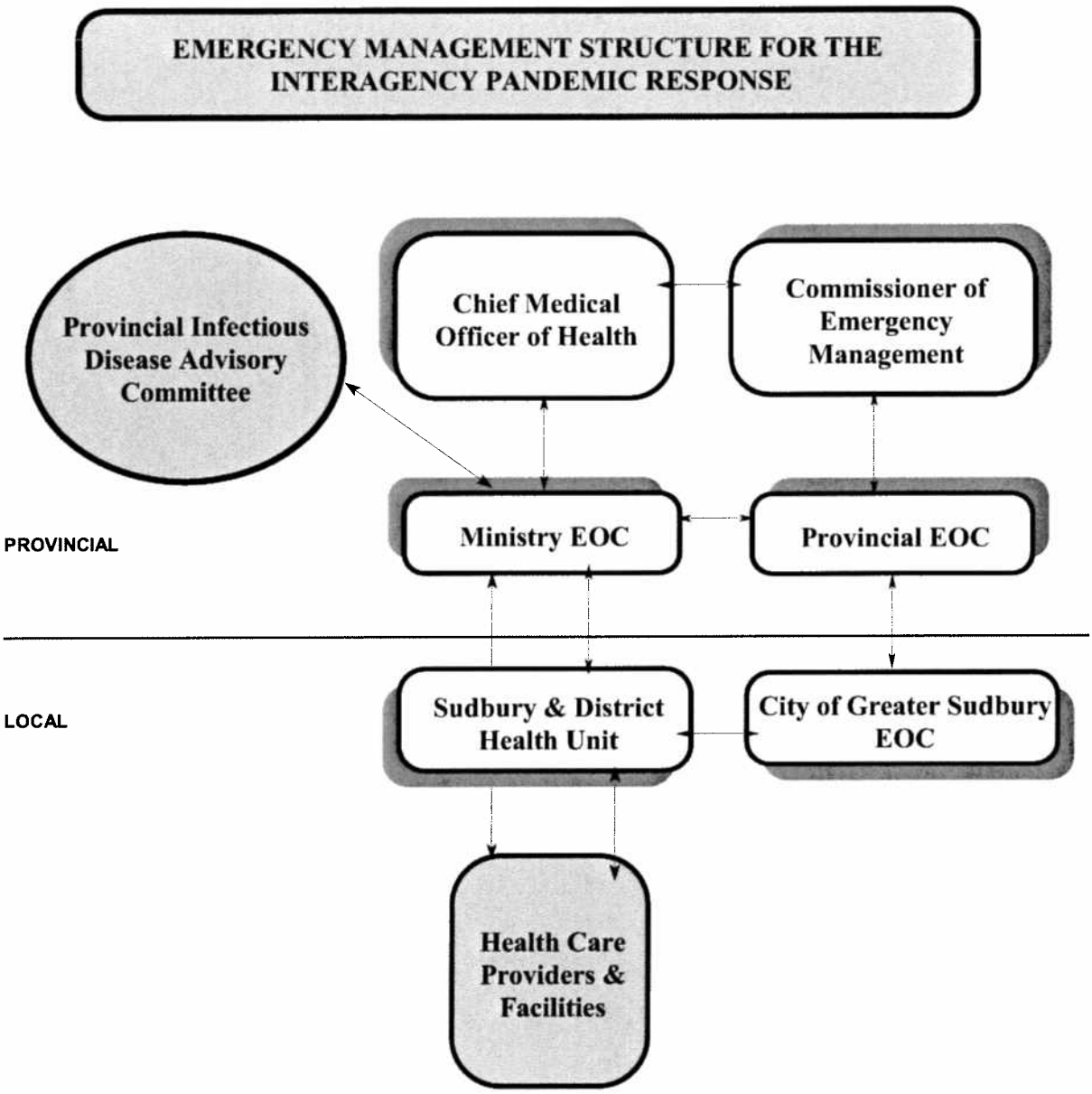
2.1 Authority

According to the June 2005 Ontario Health Plan for an Influenza Pandemic (p.6), "municipal governments and local public health authorities are responsible for coordinating the local response to an influenza pandemic."

Local response will follow local plans, such as this plan and organization-specific pandemic plans, understanding that these plans are subject to provincial or federal "override."

At the provincial level, it will be the Chief Medical Officer of Health and the Commissioner of Emergency Management who will be jointly responsible in leading the provincial response. This dual authority reflects the fact that currently, both people have independent legislative authorities to act during an emergency, based on the *Health Protection and Promotion Act* and the *Emergency Management and Civil Protection Act.*

The following figure identifies how the local management structure integrates with the provincial management structure. The Chief Medical Officer of Health will give directives to local public health units and health care providers through the Ministry of Health Emergency Operations Centre (EOC). The Commissioner for Emergency Management will give directives to the City EOC through the Provincial EOC. The local Medical Officer of Health also has legislative authority to take local measures to control an infectious disease outbreak.


EMERGENCY MANAGEMENT STRUCTURE FOR THE INTERAGENCY PANDEMIC RESPONSE
Provincial Infectious Disease Advisory Committee
Chief Medical Officer of Health
Commissioner of Emergency Management
Ministry EOC
Provincial EOC
PROVINCIAL
LOCAL
Sudbury & District Health Unit
City of Greater Sudbury EOC
Health Care Providers & Facilities

2.2 Planning Basis

The planning basis includes the following process, assumptions, a legislative analysis and a set of management principles that need to be addressed.

A Planning Process

Planning efforts in Greater Sudbury have been inclusive, with efforts made to include all those groups and organizations that have a stake in pandemic preparedness and response, through the local stakeholder sessions and the Pandemic Clinical Care Committee.

The Sudbury Pandemic Clincal Care Committee (PC3) will report on its activities and present the deliverable (Interagency Health Sector Plan) to the City of Greater Sudbury Emergency Management Planning Committee (GSEMPC) through the Chair who sits on the GSEMPC.
See Appendix 1 - Terms of Reference PC3, Appendix 2 - Terms of Reference GSEMPC and Appendix 6 - SDHU - Interagency Pandemic Plan for the Health Care Sector

B Assumptions

This planning process is based on the following assumptions.

- A national emergency could be declared soon after an influenza pandemic is established in Canada, and a provincial emergency may be declared before the strain of influenza appears in Ontario. It is likely that a municipal state of emergency will be declared shortly after a provincial emergency is announced.

- The pandemic virus will be presented in Canada three months after it emerges in another part of the world, but could arrive much sooner due to the increased volume and speed of air travel.

- The first peak in mortality will be one month after the peak in illness, and a pandemic could occur in one, two or more waves, each lasting six to eight weeks.

- A vaccine will not be available for a least four to six months after the virus is identified, so it will likely not be available for the first wave.

- All local efforts and communications will be consistent with provincial guidelines and directives. It is expected however, that there will be areas in which the province will not offer directives and that the local decision centers will need to provide leadership for their respective areas of responsibility.

- Local plans will be consistent with all existing health and emergency management legislation, the Canadian Pandemic Influenza Plan (February 2004), and the Ontario Health Influenza Pandemic Plan (June 2005).

- **Public education and awareness**
  A comprehensive and coordinated communications strategy will be essential before, during and after a pandemic. Coordination with provincial and federal communications will be needed, as will good local interagency coordination. Communication strategies will differ, depending on the period and phase of the pandemic. During a pandemic alert period, people need to know about the response and mitigation plans and what they can do now. During the pandemic period, they will need to know what to look for, how to protect themselves, how to get help, how to help a family member and how to assist in the response efforts.

- **Community mobilization**
  A well-organized, well-protected, volunteer-based community response will likely have the greatest impact in minimizing societal disruption, illness and death during a pandemic. Based on the CDC estimates, over 95% of influenza pandemic patients will recuperate in their homes. They will need the help of family, friends and volunteers.

C Legislative Analysis

This plan was developed within the context of the following legislation.

- The 1990 *Emergency Management and Civil Protection Act* is the authority under which the Premier will declare a provincial emergency during an influenza pandemic. The Act requires heads of municipal councils to develop and implement emergency management programs consisting of an emergency plan; training programs and exercises for municipal and crown employees and other persons; public education; and any other elements required by regulations. If an emergency is declared, Section 7(3) allows the Premier to direct and control a municipality's administration, facilities and equipment, and can further direct and control the exercise of the municipality's powers and duties.

- With the *Order-in-Council 167/2004 (February 2, 2004)*, it was identified that the Minister of Health and Long-Term Care is responsible for formulating emergency plans for large - scale human health emergencies and epidemics, and emergency health services.

- The 1990 local *Health Protection and Promotion* (HPPA) imposes duties and responsibilities on the local Medical Officer of Health (MOH) with respect to the Control of Health Hazards (Part III) and Communicable Diseases (Part IV).

- The *Public Hospitals Act* requires hospitals to obtain Ministry approval before using additional sites for hospital services.

D Management Principles

To mount an effective and efficient response, the City of Greater Sudbury will need the following:

- **A coordinated Interagency plan**
  Although the groups and organizations involved in pandemic preparedness all have different responsibilities and accountabilities, there is widespread acknowledgment of our interdependence. In order to reach our common goals of minimizing illness, death and societal disruption, we will need to work closely together. We believe this will be best achieved through a coordinated interagency plan, particularly for the health sector.

- **Business continuity planning**
  All business, non-governmental organizations, government departments and agencies will be best equipped to deal with influenza if they have plans in place to promote cough etiquette, protective practices and ways to deal with the potential absence of 15% - 35% of their employees over a six-to-eight -week period.

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Chapter 3

Roles and Responsibilities

3.0 Introduction

The World Health Organization, Public Health Agency of Canada and the Ontario Ministry of Health and Long-Term Care have all released influenza pandemic documents to guide the local planning process and to address prevention, preparedness and operational activities for an effective response and recovery. The overall goal of these plans is to minimize serious illness, death and societal disruption in the event of an influenza pandemic.

All governments and all sectors have a role to play in preparing for, responding to, and recovering from an influenza pandemic.

It is critical that the roles and responsibilities are clear and that there is strong commitment and coordination of efforts. Current roles and responsibilities for the World Health Organization, Public Health Agency of Canada, Ministry of Health and Long-Term Care, the Municipality and Sudbury & District Health Unit are included with this section.

3.1 International - World Health Organization

The World Health Organization (WHO) is responsible for coordinating a global response to an influenza pandemic. WHO has conducted influenza surveillance since 1947 to detect prevalent and emerging strains.

The mandate of the WHO with respect to pandemic influenza is to:

- Conduct worldwide surveillance and reporting of disease.
- Identify the beginning of a pandemic through the use of the phased response.
- Co-ordinate global response to a pandemic.
- Provide recommendations on the management of a pandemic.

3.2 Federal - Public Health Agency of Canada

The Public Health Agency of Canada (PHAC) is responsible for coordinating the nationwide health response to pandemic influenza. Federal responsibilities include entering into agreements and arrangements with international organizations such as WHO to support surveillance, coordination and investigation activities.

The Canadian Pandemic Influenza Plan (CPIP) was released in February 2004 (updated in September 2006). The plan details the federal government's actions and expectations for the provinces and territories.

The mandate of the PHAC with respect to pandemic influenza is to:

- Liaise with the World Health Organization, the US Centres for Disease Control and other national/international organizations to coordinate surveillance, investigation and vaccine activities.
- Procure/distribute diagnostic reagents and technical information to provincial/ territorial public health laboratories.
- Establish domestic influenza vaccine manufacturing capacity.
- Acquire influenza vaccine and antiviral drugs and allocate them equitably to provinces and territories.
- Work with provinces and territories to provide vaccines and antiviral drugs to specific populations for which the federal government is responsible (e.g., First Nations, RCMP, military personnel).
- Develop communication strategies, plans and framework.
- Connect with provinces and territories through the Pandemic Influenza Committee (PIC) and not connect directly with any city.

3.3 Provincial - Ontario Ministry of Health and Long-Term Care

A Provincial - Ontario Ministry of Health and Long-Term Care

The Ministry of Health and Long-Term Care (MOHLTC) is responsible for coordinating the province-wide response to an influenza pandemic, including the declaration of a provincial emergency.

The Ontario Health Pandemic Influenza Plan (OHPIP) was released on May 31,2004, an updated in June 2005 and next version to be released by June 2006.

The mandate of the MOHLTC is to:

- Implement national recommendations on influenza surveillance and immunization programs.
- Maintain provincial surveillance activities, report diseases caused by influenza and participate in national surveillance activities.
- Coordinate investigations of outbreaks and clusters of febrile respiratory illness (FRI) influenza-like illness (ILI).
- Undertake tasks most effectively done at the provincial level (e.g., bulk purchasing equipment, stockpiling and distributing vaccine and antiviral, and distributing medical supplies).
- Provide guidelines and direction to local public health authorities to ensure consistent planning and response across the province.
- Support special studies to enhance the province's capacity to manage a pandemic.
- Coordinate public education programs.
- Provide guidelines and direction to local pandemic planning groups.
- Provide guidance to the health field during a pandemic.

The OHPIP Steering Committee and Workgroups were established in the fall of 2004 to further develop the plan. The following groups are members: OHPIP Public Health Subcommittee; Surveillance Working Group; Health Services Workgroup; Public Health Measures Working Group; and Vaccine and Antiviral Working Group.

Other sections of the MOHLTC that are involved in emergency planning/ management include the Public Health Division, Emergency Management Unit and the Provincial Infectious Disease Advisory Committee.

B Public Health Division of the MOHLTC

The Public Health Division oversees activities relating to Ontario's public health system and is led by the Chief Medical Officer of Health and Assistant Deputy Minister. The Infectious Diseases Branch provides leadership and support to Ontario's public health system, including 36 boards of health. The Infectious Diseases Branch provides public health, epidemiological, expert consultation and technical support to local boards of health and other health agencies with respect to the programs of the Mandatory Health Programs and Services Guidelines (MHPSG). The Infectious Diseases Branch is also responsible for disease-related databases, communications and support for health units during outbreaks.

C Emergency Management Unit

The Emergency Management Unit (EMU) was created in December 2003 to support emergency management activities within the MOHLTC and the health care system. EMU is a branch of the Public Health Division and is focussed on enhancing an integrated approach to the challenges faced during emergencies. Their mission is to collaborate with stakeholders to develop, implement and maintain a comprehensive strategy to prepare for, respond to and recover from health emergencies of known and unknown origins.

The EMU's mandate is to:

- Identify and develop the infrastructure required to ensure emergency readiness sustainability.
- Identify and coordinate the business continuity plan for the Ministry.
- Develop Ministry Emergency Readiness Plan(s) and emergency response protocols that are consistent with Emergency Management Ontario's expectations and Ministry/health care system needs; and
- The Emergency Management Unit struck the OHPIP Steering Committee to oversee the development of the health influenza pandemic plan. The EMU has provided administrative support to OHPIP's Communications Sub-Committee. The EMU is also working collaboratively with Emergency Management Ontario (EMO) to ensure a coordinated response to an influenza pandemic.

During an influenza pandemic, the role of the EMU will be to coordinate the Ministry Emergency Operations Centre (MEOC), which will provide direction and operational management to the health care sector. The MEOC reports to the Emergency Executive Management Committee, which reports to the province's Chief Medical Officer of Health. The MEOC will be linked with the Provincial Emergency Operations Centre as part of a provincial effort to coordinate the emergency response in non-health related sectors (see Figure on page 25). The Provincial Emergency is coordinated at Emergency Management Ontario (EMO).

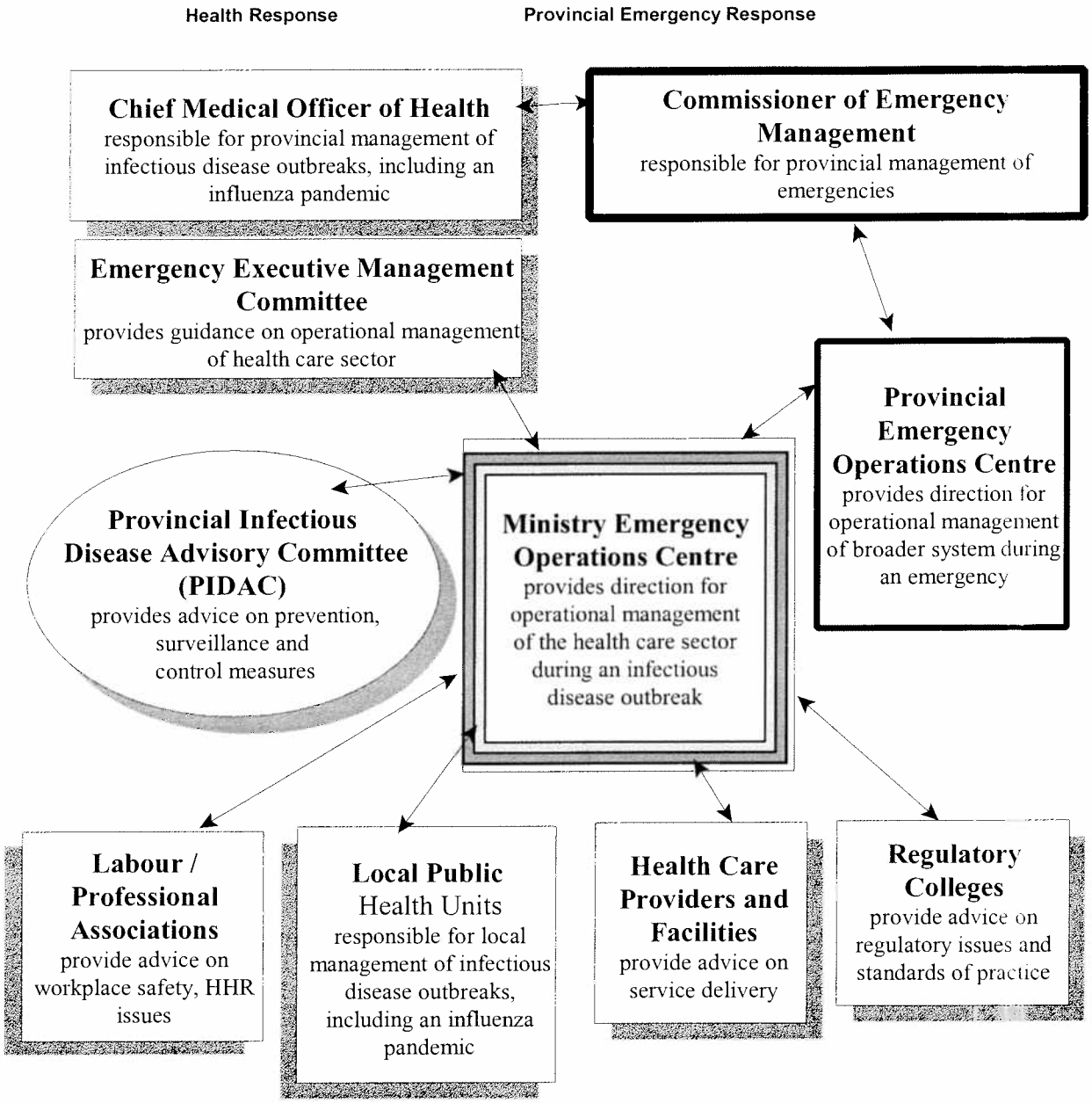
D Provincial Infectious Disease Advisory Committee

The Ministry of Health and Long-Term Care established the Provincial Infectious Diseases Advisory Committee (PIDAC) in response to a recommendation by the Expert Panel on SARS and Infectious Disease Control (the Walker Panel) in order to provide a single standing source of expert advice on infectious diseases for Ontario.

PIDAC advises the Chief Medical Officer of Health (CMOH) on prevention, surveillance and control measures necessary to protect the people of Ontario from infectious diseases. PIDAC provides the CMOH with advice on issues such as standards and guidelines for infection control, emergency preparedness for an infectious disease outbreak, protocols to prevent and control infectious diseases and immunization programs.

The role of PIDAC during an influenza pandemic will be to provide advice on prevention, surveillance and control measure to the province's CMOH.

Roles and Relationships in Emergency Management in Ontario



Ontario Health Plan for Influenza Pandemic - June 2005

3.4 Local

The mandate of municipal government and local health care authorities, according to OHPIP and with respect to pandemic influenza (see chart on page 30 for breakdown by institution) is to:

- Maintain a local surveillance system reporting cluster of FRI/ILI and investigating outbreak.
- Develop plans to provide mass immunization and distribute vaccines, antiviral drugs and medical supplies.
- Liaise with local partners (eg. emergency responders, hospitals, community services, mortuary services, schools and workplaces).
- Access the capacity of local health services, including health human resources, and help health services identify additional/alternate resources
- Define clear responsibilities for communication at the local and facility level during pandemic influenza.
- Collaborate with the provincial government to deliver public information/education programs.
- Deliver mass vaccination/prophylaxis program.

Local pandemic planning groups, led by the public health authority (Sudbury & District Health Unit), are responsible for planning the local response to an influenza pandemic, based on the Provincial and Federal plans.

3.5 Head of Council

The Mayor or designate may declare that an emergency exists or has been terminated in the municipality. In the event of a declared emergency in the City of Greater Sudbury, the Mayor ensures that the Solicitor General, Ministry of Community Safety, Correctional Services and members of Council are notified.

3.6 City of Greater Sudbury - Emergency Management Program

As part of the City's Emergency Management Program, and as outlined in the City's Emergency Response Plan, the Community Control Group is responsible for emergency management in the City of Greater Sudbury.

The committee's prime responsibility is to provide the executive leadership and support for the actions required to develop and implement the municipal requirements of the *Emergency Management and Civil Protection Act.*

This CCG is generally responsible for the initiation, coordination and implementation of response plans for all departments, under the jurisdiction of City Council.

During an emergency, the CCG is collectively responsible for the direction and coordination of emergency response operations within the City of Greater Sudbury in order to save lives, reduce suffering, sustain health and morale, minimize property damage and maintain and restore utilities for essential services; in general, to neutralize the effects of the emergency.

In the event of an emergency, the Community Control Group will immediately convene. The Emergency Operations Centre will be activated by staff of Emergency Management and attended by CCG members to manage emergency response and recovery operations.

The Medical Officer of Health is a member of the CCG and has the local role in providing advice and direction on disease related matters.

Other members of the Community Control Group include: Mayor; Deputy Mayor;Chief Administrative Officer; Chief Financial Officer and Treasurer; General Managers of Growth & Development, Community Development, and Infrastructure & Emergency Services; Executive Director Administration Support Services; Director of Human Resources & Organizational Development; Manager of Corporate Communications; Community Emergency Management Coordinator; and Chiefs of Police, Fire and Emergency Medical Services.

3.7 City of Greater Sudbury - Emergency Management

The City's Emergency Management Division is the coordinating agency for emergency and disaster preparedness and response and recovery activities, as part of the City's Emergency Management Program. The division is responsible for developing the City's Emergency Response Plan and coordinating City agencies in developing supporting documents to the City's Emergency Response Plan.

The supporting documents contain either specific response plans for hazards that may pose a threat to the City or division specific procedures. Senior staff within the City divisions that are represented on the CCG (such as EMS, Fire, Police, Housing and Public Works) work together collaboratively in developing the supporting documents.

The Emergency Management Division is responsible for activation of City's Emergency Operation Centre (EOC) and initiating the notification of key personnel and agencies in the event of an imminent, or actual, emergency or disaster.

3.8 City's Departments

The City Departments/Divisions are responsible for engaging in preparedness training and exercise activities to ensure continued readiness of their specific operational support functions. They will be required to employ their standard business continuity and business resumption planning principles to ensure the continuity of essential services.

The Sudbury & District Health Unit, through the Emergency Management Division, will provide City Departments/Divisions with health related information to assist with pandemic influenza preparedness.

A City Division Planning Guide is posted on the City's Emergency Management website. City agencies shall utilize planning guidance to develop their own service continuity plans.

3.9 Sudbury & District Health Unit

The Sudbury & District Health Unit Pandemic Influenza Plan was released on October 20th, 2005, and is organized according to the WHO Pandemic Phases. The Sudbury & District Health Unit's Plan is developed with key decision elements already established by the federal and provincial plans, although local planning is critical. Many decisions are within federal/provincial jurisdiction and directions must be followed locally, e.g., vaccine priority groups. Federal and provincial plans provide the framework for local planning.

3.10 City of Greater Sudbury

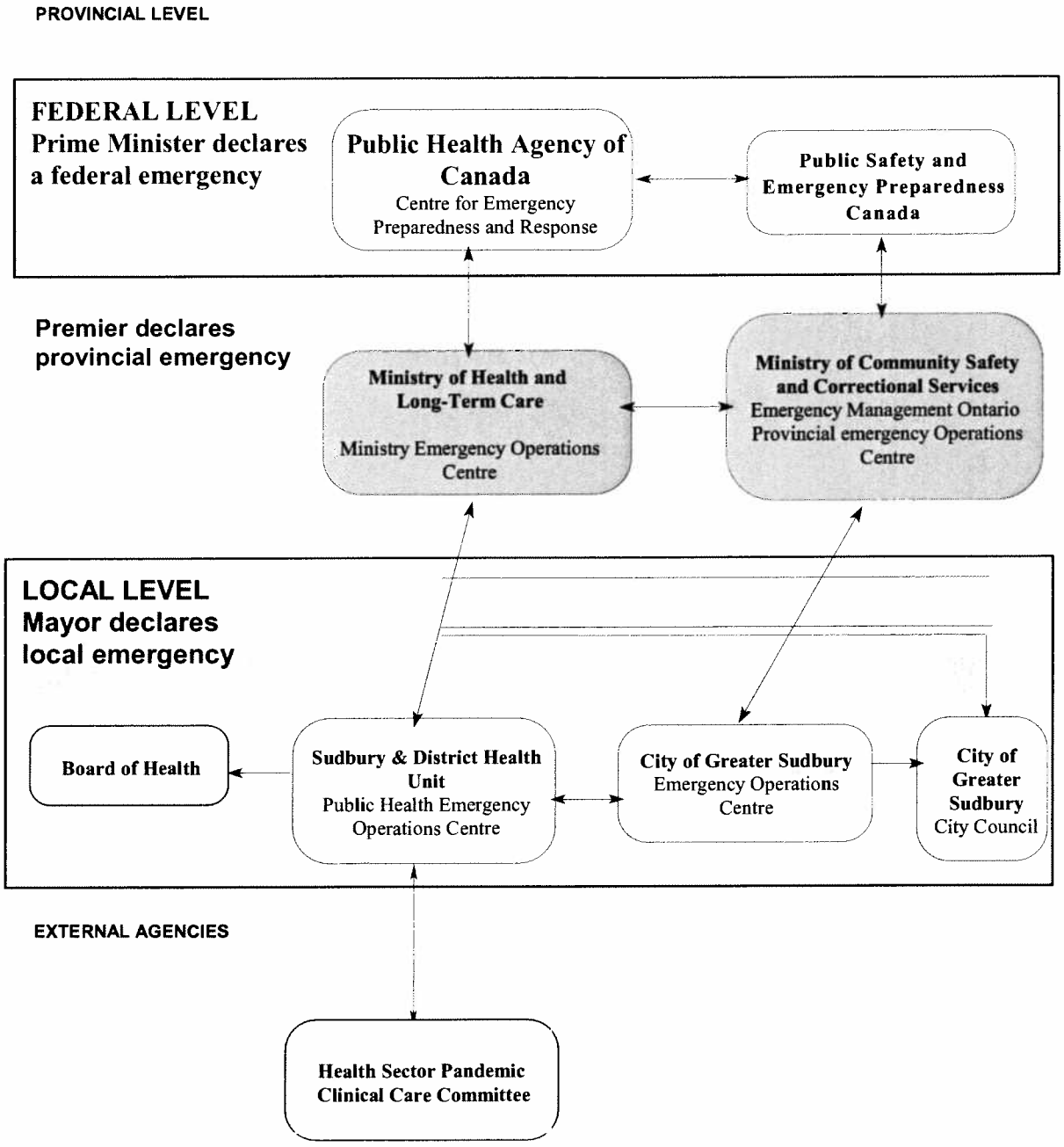
The City of Greater Sudbury has developed an Emergency Response Plan which is the framework for a response to pandemic influenza. The City's Pandemic Influenza Plan will serve as an appendix to the Municipal Emergency Response Plan.

3.11 Pandemic Clinical Care Committee

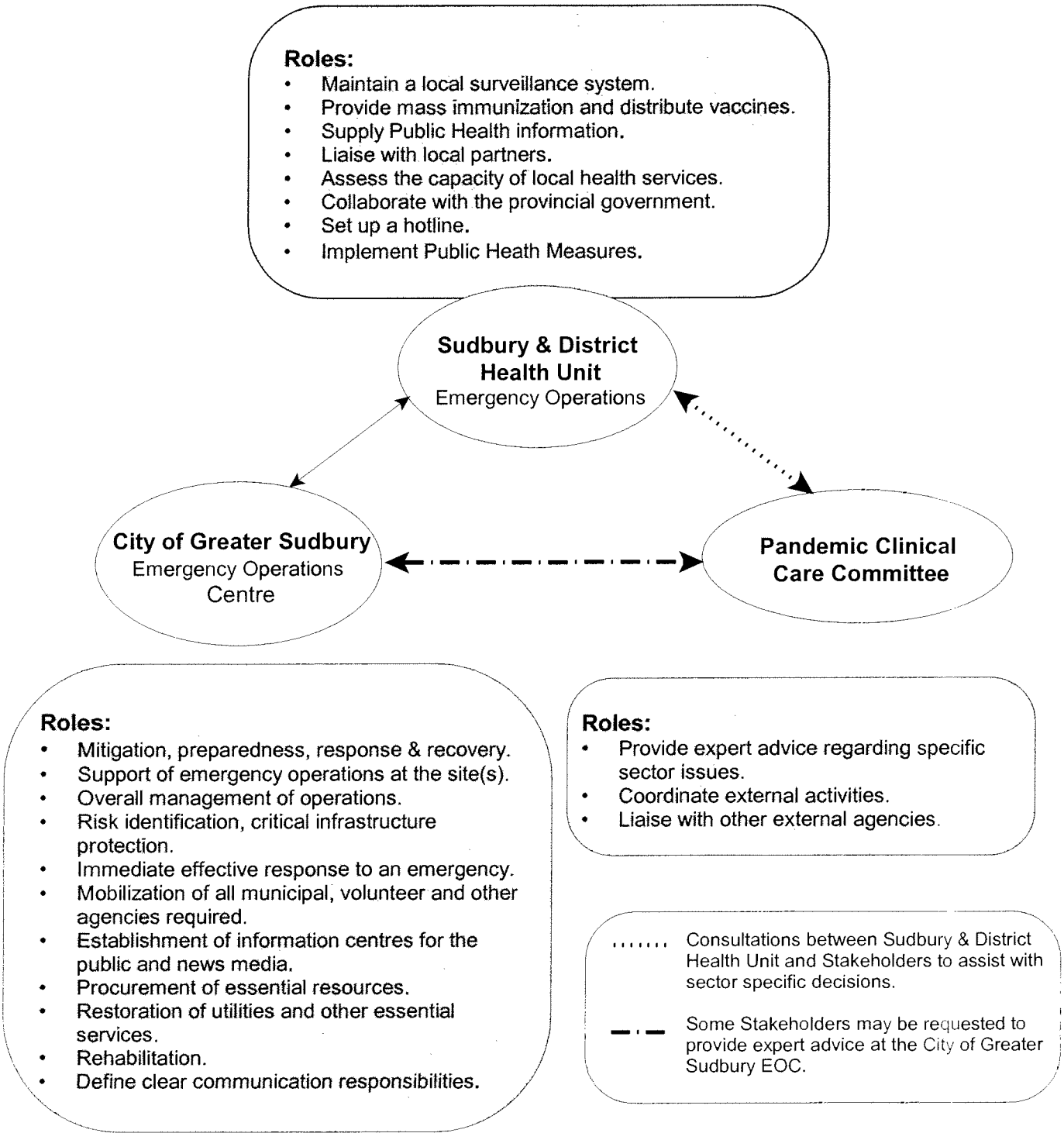
The Committee's primary focus is to:

- bring together representatives of clinical care provider groups in the catchment area for the Sudbury & District Health Unit, to coordinate the assessment and clinical management of pandemic influenza patients in both the community and hospital settings;
- create communication links between health related agencies involved in pandemic preparedness and response; and
- link to municipal emergency response plans across the relevant service areas.

Emergency Management Structure for the Interagency Pandemic Response



Decision Centres for Coordinating the City of Greater Sudbury Response to a Pandemic Influenza



City of Greater Sudbury Pandemic Plan 2006

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Chapter 4

Emergency Planning

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Revised November 2006

4.0 Introduction

Emergency measures address coordination and preparation of services needed to maintain public safety and order during a pandemic. These include security for vaccine transportation and clinics, location and acquisition of space for clinics and emergency operations as required, volunteer management and mass fatality issues

4.1 Elements of the Emergency Plan

Greater Sudbury Police Services will provide security for the transportation of the vaccine within the boundaries of the City of Greater Sudbury.

4.2 Public Order Security

The Greater Sudbury Police Services may be called upon to provide traffic control and/or public order maintenance in areas such as medical facilities and the Health Unit. Police response will be contingent upon available resources and priority demands within the community. As part of the tiered emergency response in the City of Greater Sudbury, further planning is required in order to review and establish the Police Service's role in responding to influenza related incidents including the enforcement of public health orders.

4.3 Assessment/Alternate Care Sites

Alternate care sites are temporary health care sites that could be opened during a pandemic influenza to deal with the overflow of patients seeking medical attention.

The Sudbury & District Health Unit continues to work with the Pandemic Clinical Care Committee and is planning for alternate care sites in 2006 to include the viability and the feasibility of these sites, and look at the required supplies, equipment and human recovery requirements. In addition, consideration is being given to the development of Assessment Centres.

4.4 Isolation Framework for Community Living Settings

In a working assumption that shortage of space may preclude everyone who is ill being sent to an acute care facility for health services, care in place in community living settings may need to occur. Settings might include shelters, rooming houses, boarding homes, university/college residences, correctional facilities, group homes for developmentally challenged individuals, etc. The issue of isolating individuals in community living settings who may be unable or unwilling to be isolated is a complex one, and one which may actually be more relevant at the beginning of a pandemic, i.e. for the first few suspect cases.

In order to begin to address this issue, the City of Greater Sudbury and the Sudbury & District Health Unit are consulting with the Social Planning Council and other community groups. These groups should consider developing a strategy for dealing with ill residents of shelters, rooming houses, boarding homes and drop-in centres. Overcrowding and living in close proximity means that influenza is likely to spread quickly throughout these community living settings. Resources are already limited and most facilities have little or no health care provider support.

Homeless services providers in the City of Greater Sudbury will need to consider contingency plans for handling progressive numbers of ill residents in a shelter situation. Each shelter or facility is physically set up differently so decisions need to be made by looking at individual settings, and keeping in mind the number of individuals who are ill. Infection control practitioners will need to provide infection control expertise.

Students living in university/college residence and correctional facilities may also require external support to help with the increased number of illnesses within their settings as part of their pandemic planning.

4.5 Child Care / Supportive Care Issues

It is expected that the need for childcare will increase throughout the pandemic. While the mortality rate for children infected with pandemic influenza may or may not be low, the infection of parents and other caregivers is likely to have a more significant impact on the welfare of their children. Protecting children whose parents and/or family are unable to care for them, either on a temporary or permanent basis, will be necessary. The child care community needs to be building child care services within the pandemic plan.

Other vulnerable populations may also be affected by ill or deceased care providers. The issue of provision of support in the community will need to be addressed in the future. This may include vulnerable seniors, disabled individuals, etc.

Next Steps

Discussion/consultation with stakeholders working with vulnerable populations will need to occur in order to plan effectively for support to this community.

4.6 Maintaining Critical Essential Services

The planning for maintenance of critical essential services in our community will need to continue.

The role of City government will include; declaration of an emergency to free up required resources and reallocation of staff, provision of essential services, ensuring the health and safety of City workers and communication with staff and the public. It is important that all divisions in the City develop service continuity plans to ensure the continued delivery of essential services.

For more detail, please refer to Appendix 3 of the City Division Planning Guide.

4.7 Psychosocial Services

People impacted by a disaster, including pandemics, have to adjust to significant changes in their lives. The resulting psychological, social and economic disruptions affect the well-being of individuals, families and the community as a whole. During these events, people may have to grieve for their losses, deal with personal or family crises, or perhaps look for a new job. Many will need to learn to talk about their feelings and experiences and how to face the challenges of an unknown future.

Psychosocial Services offer victims of disasters timely and appropriate information and services to help them better understand, express, and manage the psychosocial effects of disasters and their consequences and facilitate their journey to recovery and healing.

In a pandemic, the Sudbury & District Health Unit will co-ordinate with partner agencies and will identify, monitor, track, and respond to psychosocial needs and requirements with those affected. Based on this ongoing assessment, the delivery of psychosocial services to affected populations will be mobilized and coordinated.

4.8 Volunteer Management

Volunteer agencies played a key role in SARS response and it is anticipated that they will play an integral role in a future pandemic. The City's Emergency Management Division and Community Development Department in collaboration with the volunteer sector will need to explore the existing recruitment process currently in place and to further develop a framework, with a view to developing memoranda of understanding for volunteer management.

4.9 Pandemic Influenza Volunteer Management

It is estimated that in the City of Greater Sudbury there will be 31,000 to 79,000 people clinical ill, with 15,733 to 36,710 requiring outpatient care, 364 to 851 requiring hospitalization and 86 to 200 people will die. Response activities will include not only direct provision of health care, but also dealing with issues such as mass fatalities and increased pressure on other public services.

Many of these response activities will need to occur simultaneously and within each phase. The health care system may become overwhelmed within a short period of time and there will be a great need for additional human resources within the public service sector. The issue of volunteers will therefore become another key element in responding to a pandemic influenza.

The pandemic volunteer management planning needs to be based on the City of Greater Sudbury's Emergency Response Plan, Canadian Pandemic Influenza Plan, and the Ontario Pandemic Influenza Plan. Meetings with major volunteer organizations will be held to further the development of this framework, with a view to developing memoranda of understanding for volunteer management. Volunteer roles and job descriptions are being and will be identified, as needed, by the Pandemic Clinical Care Committee.

4.10 Pre-pandemic Period

During the pre-pandemic period Emergency Management Division will work with Sudbury & District Health Unit, Human Resources and Social Services Administration, as well as volunteer agencies to develop the volunteer framework further so that it can be made operational in the pandemic period. Roles and responsibilities of different agencies involved still need to be clarified and agreed upon. As the existing volunteer agencies will be the primary source of already screened and trained volunteers, ongoing communication and planning with these agencies is one of the focus areas.

4.11 Pandemic Period

Activities related to volunteer management during the pandemic period will be four-fold:

A Needs Assessment

During the initial phase of the pandemic period, and as part of the overall response, needs assessment will be conducted to determine the extent of the emergency, and to develop response objectives, e.g., it may be necessary to engage volunteer agencies.

B Volunteer Agencies Supportive Assistance

Volunteer agencies may be providing supportive assistance to the emergency response. For example, during SARS the Canadian Red Cross and The Salvation Army were delivering medical kits to people in quarantine. The decision to do this will be made based on the needs assessment and other service related considerations (efficiency, skill-sets required, cost savings, etc.)

C Registration of New Volunteers

It is expected that during the pandemic period, many people will come forward to volunteer their time or give donations. In order to manage this influx of offers, a Donation and Volunteer Operations Centre will be set up to coordinate activities of volunteer efforts and deal with incoming offers and requests. The types of calls that will come in to this centre may include the following:

- offers from individuals to volunteer their time
- offers of assistance from volunteer agencies
- offers of financial donations
- offers of in-kind donations from individuals
- offers of goods and services from organizations both public and private
- requests for assistance from individuals (both goods and services)
- requests for assistance from organizations (both goods and services)

As the information comes into the centre, it will be entered into a database and assigned a tracking number. The information will undergo an initial assessment with the following decisions being made:

- offers from individuals to volunteer their time will be referred to Volunteer Centre, who will refer the individuals to the most appropriate volunteer agency (based on the matching of the individual's skill set with needs of particular volunteer agencies)
- offers of assistance from volunteer agencies will be processed further based on needs assessment and response activities
- offers of financial donations will be directed to identified volunteer organizations or bank accounts (if established)
- offers of in-kind donations will be discouraged. Experience shows that financial donations are the most efficient, as they reduce (or eliminate) the time necessary to process donations, and transportation and handling costs. Financial donations also ensure that the goods purchased are the appropriate ones, which may also be a risk-management tactic
- offers from outside the Sudbury area will be referred to the Province (EMO) for coordination
- requests for assistance will be assessed, prioritized and referred to the most appropriate service provider. This can include a volunteer agency, a city service or an external organization

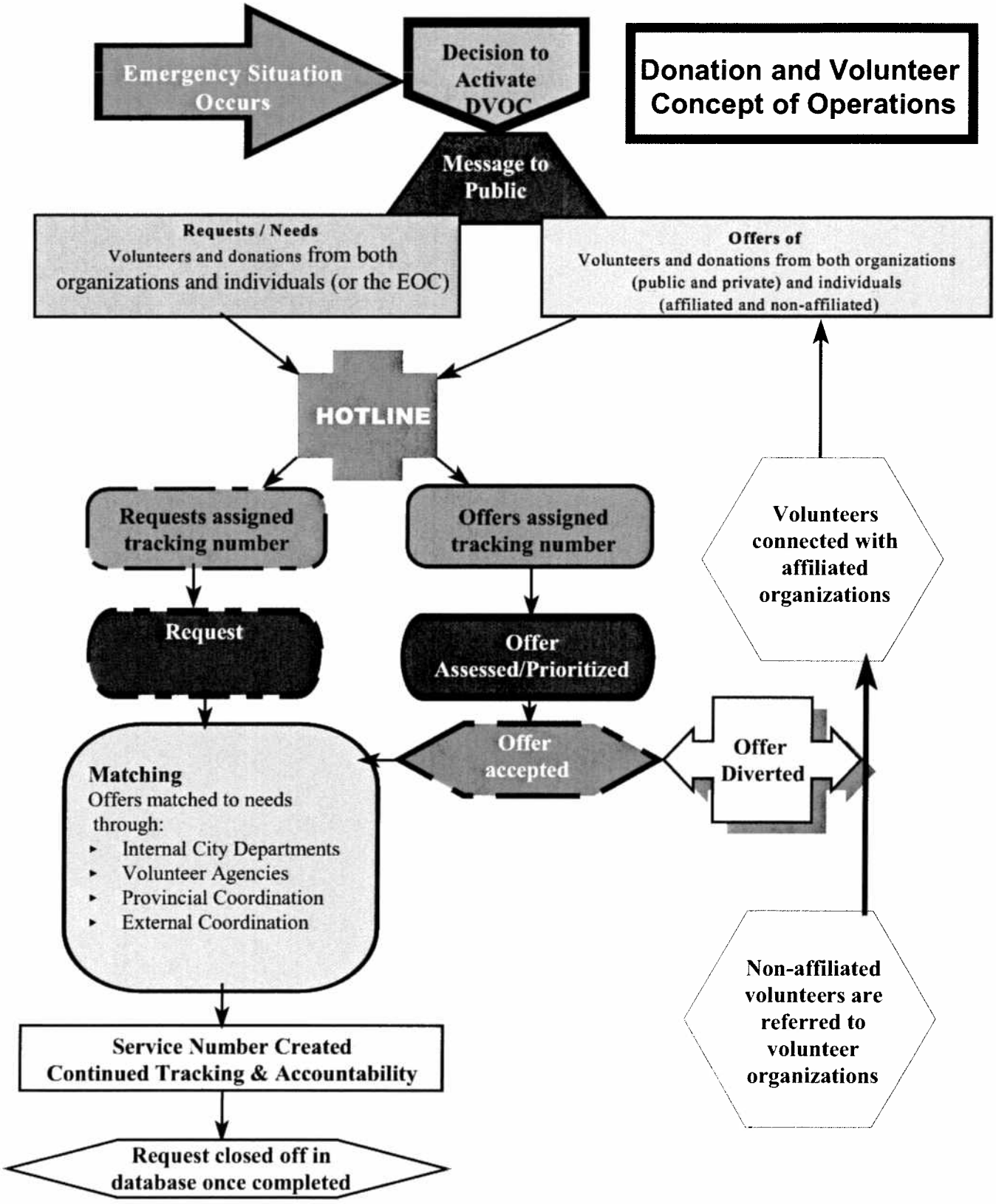
The responding agency or organization for each of the above scenarios will be accountable for their particular response.

D Utilization of Volunteers by the City

In certain service areas it may be possible that newly registered volunteers are temporarily and directly engaged by the City, provided they have the required skill sets. Examples of these service areas include: providing admin support to mass vaccination clinics, greeting at mass vaccination centres, providing support to homeless shelters, etc.

4.12 Post-pandemic Period

Volunteer agencies are encouraged to conduct debriefing sessions with their volunteers. In addition, the City of Greater Sudbury will organize debriefing meetings with partnering volunteer agencies to identify achievements and area of improvement.


Donation and Volunteer Concept of Operations
Emergency Situation Occurs
Decision to Activate DVOC
Message to Public
Requests / Needs
Volunteers and donations from both organizations and individuals (or the EOC)
Offers of
Volunteers and donations from both organizations (public and private) and individuals (affiliated and non-affiliated)
HOTLINE
Requests assigned tracking number
Offers assigned tracking number
Request
Offer Assessed/Prioritized
Offer accepted
Offer Diverted
Volunteers connected with affiliated organizations
Matching
Offers matched to needs through:
Internal City Departments
Volunteer Agencies
Provincial Coordination
External Coordination
Non-affiliated volunteers are referred to volunteer organizations
Service Number Created
Continued Tracking & Accountability
Request closed off in database once completed

4.13 Management of Mass Fatalities during Pandemic Influenza

The total number of deaths (including all other causes) during a pandemic wave of six to eight weeks is estimated to be similar to that which usually occurs over a period of six months. Planning for mass fatalities is therefore necessary as there will be a strain on the current system for a prolonged period of time. Some of the issues that need to be addressed include:

- pronouncement and certification of deaths
- transportation of bodies
- morgue capacity, including in acute care facilities
- planning and gathering at funerals
- supply management

A few documents providing guidance for planning around these and other related matters are already in place:

- The Canadian Pandemic Influenza Plan provides an annex that contains guidelines to assist local authorities and other relevant agencies in planning for the management of mass fatalities during a pandemic influenza, including dealing with issues such as corpse management, temporary morgues, transportation, social/religious considerations, etc.

- The Ontario Health Pandemic Influenza Plan outlines a requirement to develop a plan at the local level for mass fatalities resulting from a pandemic influenza.

- The office of the Chief Coroner of Ontario has prepared a Provincial Multiple Fatality Plan. This plan has a recent addition that reflects the anticipated increased mortality of a pandemic influenza.

The Sudbury & District Health Unit is working with the City's Pandemic Clinical Care Committee in the development of a mass fatality plan, as part of the " Interagency Pandemic Plan for the Health Care Sector" which could be utilized in the event of a pandemic.

4.14 Animal Care and Relief Services

Because of the impact of pandemic influenza in terms of the morbidity and mortality rates, it is expected that there will be an increased need for the provision of animal care and relief services. As many pet owners will become ill, their concerns as to their pet's welfare can add significantly to their sense of despair. Many pets may also become ownerless, due to increased mortality rates.

As a lead agency for animal care, as designated by the City's Emergency Response Plan, the Community Development Department will need to develop an Operational Support Function to address animal care services. The City's capacity to respond to animal care may become overwhelmed as a result of a pandemic. Animal care includes but is not limited to the following:

- animal rescue
- recovering lost or injured animals
- evacuating animals and assisting with the housing and care of pets belonging to hospitalized or deceased person, if needed
- emergency veterinary services
- providing information and referral to the public
- registration
- managing special needs, donations and services

During the pandemic, the City's Community Development Department will co-ordinate with partner agencies and will identify, monitor, track and respond to animal care and relief needs and requirements. Based on this ongoing assessment, the department will mobilize and co-ordinate the delivery of animal care to affected populations. Partnership with animal care organizations that collaborate in providing immediate and short term services and programs for adequate care and proper disposition for companion animals, livestock and wildlife, will be required.

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Chapter 5

Communication Strategy

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Revised November 2006

5.0 Introduction

Effective and timely communication is critical before, during and after an influenza pandemic. The Pandemic Communication Strategy is broken down into three periods, corresponding to the phase of pandemic influenza outbreak as outlined by World Health Organization (WHO). The communication plan will evolve phase by phase, concurrently with the pandemic period.

WHO Pandemic phases are:

- Pandemic Alert Period (phase 3, 4, & 5)
- Pandemic Period (phase 6)
- Post Pandemic Period

During a pandemic, two main messages will need to be expressed:

- What the City of Greater Sudbury and/or the Sudbury & District Health Unit is doing to reduce illness and death and minimize societal disruption
- What the public can do to reduce illness and death and minimize societal disruption

for example:

Sudbury & District Health Unit will continue to provide timely and helpful information and advice on how you can protect your health, and what to do if you or others become ill.

Each phase or period of a pandemic requires a primary spokesperson, representing the City of Greater Sudbury and Sudbury & District Health Unit, to ensure the main messages are clear and aligned with those of other City divisions, governments or elected officials.

The primary spokesperson for:

City of Greater Sudbury	***Mayor or designate***
Sudbury & District Health Unit	***Medical Officer of Health or designate***

Establishing a consistent, identifiable, credible spokesperson will contribute to reducing public anxiety and panic as the situation evolves and during each pandemic period. Key spokesperson requirements and roles will be reviewed and evaluated. Knowledgeable and articulate subject matter experts outside the organizations may be recruited as required.

A Communication

The City's communication section will coordinate media requests, verify appointed spokespersons and establish and build credible spokespersons.

All pandemic influenza information issued by the City of Greater Sudbury will be approved by the Chief Administration Officer or designate and the Manager of Communications & French Language Services. Content development for information is the responsibility of Sudbury & District Health Unit, and is subject to approval by:

- Medical Officer of Health or designate
- Manager of Communications & French Language Services

Information, key messages, backgrounders and fact sheets will be developed and approved in advance wherever possible.

When an emergency has been declared, the Sudbury & District Health Unit, and the City"s information approval process will be revised based on the Incident Management System (IMS) and the requirements of the City's Emergency Operations Centre (EOC). All press releases will be routed through the EOC.

B Media

The media will be essential to the delivery of timely information to the public during a pandemic. The media will also play a central role in shaping public reaction to the pandemic itself, as well as the public's perception of how efficiently the City and other agencies are responding to it.

The City's Communication Unit will provide the media with:

- A dedicated pandemic influenza media phone number
- Access to a credible spokesperson
- Accurate, consistent, timely and accessible information about the pandemic
- Details about what the City is doing (except where doing so will compromise safety and/or security)
- Quick response to rumours or inaccuracies
- Information that is consistent with that from federal and provincial governments, hospitals, and other responding agencies as appropriate

Media Relations includes ongoing media analysis and monitoring to identify trends and assist in determining strategy and response. In-depth analysis and evaluations will determine the degree to which communication efforts have met objectives.

C Evaluation

Evaluation activities will include monitoring of:

- Media Relations and analysis - daily monitoring and analysis of media coverage; newspaper clippings, televison/radio broadcasts will be saved. News conferences, briefings and major speeches will be recorded.
- Web visits
- Call centre inquiries
- Public presentations
- Requests for information

5.1 Pandemic Alert Period (Phase 3, 4, & 5)

A Goals

- Increase awareness of the City of Greater Sudbury's Pandemic Influenza Plan
- Raise awareness of the risks of pandemic influenza, with steps people can take to minimize a pandemic influenza from spreading

B Strategies

- Strategies during pandemic alert include; using a variety of communication vehicles to raise awareness of what the City of Greater Sudbury is doing to prepare for a pandemic; and what individuals, businesses and others can do to prepare.

C Key Messages

Key messages will inform the public about the situation and what they can do to protect themselves.

- City of Greater Sudbury and the Sudbury and District Health Unit are preparing for a pandemic
- All City Divisions are working on Business Continuity Plans
- Businesses need to be prepared

5.2 Pandemic Period (Phase 6)

During a pandemic period, the information approval process becomes centralized through the City's Emergency Operations Centre. The City's Community Control Group is comprised of representatives from the City, Sudbury & District Health Unit, and other organizations as required. This group assumes responsibility for managing and coordinating emergency operations and providing personnel and resources needed to minimize the efforts of the emergency.

A Goals

- Reduce death and illness associated with sustained transmission of a new and virulent strain of influenza in the general population
- Minimize societal and economical disruption
- Communicate the changing role of the City and Health Unit during a Phase 6 pandemic period, including the activation of Emergency Operations Centre

B Objectives

- Clarify the roles and responsibilities concerning decision making authority and how decisions will be communicated
- Announce changes in levels of City services

- Communicate the importance of continuity with stringent infection control measures and other public health measures
- Outline ongoing surveillance activities implemented by health authorities
- Ensure the communication of the symptoms of illness and notification of health partners, the media and the public, especially seniors, long-term care providers, schools and vulnerable populations

C Strategies

The strategy during pandemic period phase 6 will be to assist the public in coping with the pandemic influenza. This includes an explanation of what to expect during this phase of sustained transmission in the general population, including altering behaviours and changes in services for all audiences - internal, external and stakeholders.

The internal strategy requires clear explanation of what to expect when the City's Emergency Operations Centre has been activated.

All divisions will be responsible for ensuring residents and businesses are kept apprised of developments during the pandemic period, including any changes to the provision of City services and any major actions required.

The City's Call Centre will play a critical role in delivering public information in the event of a pandemic. The Call centre serves as a primary information source on behalf of the City. Call centre capacity will have to be expanded during an emergency to respond to increased call volumes. The official City of Greater Sudbury website will feature a direct link to pandemic information and will be updated regularly.

Stakeholder communication includes ensuring a timely exchange of information between the Provincial Emergency Operation Centre, the City of Greater Sudbury Emergency Operations Centre and Sudbury & District Health Unit Emergency Operations Centre, as well as sharing relevant information with all stakeholders.

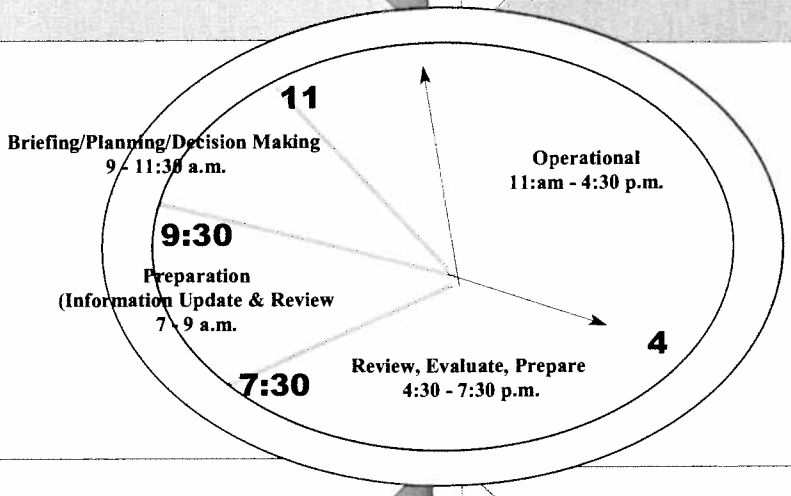
Draft Communication Cycle - Pandemic Period

Briefing/Planning/Decision Making
9:00 - 11:30 a.m.

9:00 - 9:30	Conference call between SDHU EOC & CGS Emergency Management
9:30 - 10:30	Business Cycle meeting with Emergency Control Group
10:30 - 11:00	Master assignments determined and prioritized
11:00 - 11:30	Media briefing if required

Operational
11:30 a.m. - 4:00 p.m.

11:30 - 12:00	Prepare second update to staff and stakeholders
11:30 - 12:00	Updates posted on web site and sent to call centres
1:00 - 1:30	Teleconference with EMO & SDHU
1:30 - 2:30	Prepare message for City media conference
3:00 - 4:00	Participate in joint media conference if required
4:00 - 4:30	Business Cycle meeting



Preparation
(Information Update and Review)
7:00 - 9:00 a.m.

7:00 - 8:00	Analysis and distribution of media clippings (overnight clipping service may be required)
8:00 - 8:30	Review and assess any overnight updates or new directions from MOHLTC/EMO
8:30 - 9:30	Communications

Review, Evaluate, Prepare
4:30 - 7:30 p.m.

4:00 - 4:30	Debrief with communications staff and review, summarize progress of master assignments
4:30 - 5:00	Prepare turnaround notes for overnight staff if overnight schedule is activated
5:00 - 6:00	Review web content, debrief with call centre, determine public concern priorities through response to call centre
6:00 - 7:30	Monitor media analysis, anticipate and prepare for next day

Communication Cycle will be adjusted accordingly to integrate with Business Cycles of both Emergency Management Ontario and Sudbury & District Health Unit.
An overnight schedule will be considered if resources are available and the service demands require a 24/7 response.

D Key Messages (Phase 6)

Medical interventions such as vaccines and antiviral drugs will not likely be available for everyone. Messages will provide information about the distribution and specific items people should know or be doing to minimize risk and health complications.

For example:

- Sudbury & District Health Unit is responsible for the distribution and administration of vaccine and antiviral medication in Greater Sudbury.
- Priority groups have been established federally and provincially for the distribution of vaccine and antiviral medications; Sudbury & District Health Unit has a planned approach to reach the priority groups (with details on how people can obtain vaccine or antiviral medications)
- Identification of which government level is responsible for which key decisions, programs and services
- How to stay healthy at home and work
- Update information on the number of cases (confirmed, suspected and potential)
- How to seek medical attention - where to go, protocol on how to enter the hospital or medical centre
- When to seek medical attention - list of degree of symptoms
- Caring for seriously ill
- Death at home - what to do next
- Where to go for medical help - child care, pets, and food

E Media Relations

The media are a prime transmitter of communication and information. They play a critical role in setting agendas and in determining outcomes. The pace of media relations will accelerate significantly once the pandemic period begins.

News conferences will be held regularly. Timing would depend on when the provincial and federal conference take place. The Medical Officer of Health or designate will update the public health aspects of the pandemics impact on the City of Greater Sudbury.

The Mayor, the Health Unit, EMS, Police and other agencies may be part of the media conferences. There may be a need for joint conferences with hospitals, and other agencies, such as school boards, and senior governments. Media relations staff may be required to be on call late into the evening and possibly around the clock.

5.6 Post Pandemic Period

A Goals

- declare end of emergency operations
- provide information on the re-establishment of City services
- assist in addressing public health needs
- acknowledge contribution of all stakeholders and staff

B Objectives

- join with other stakeholders in public announcements to show comprehensive process
- publicly address community emotions after pandemic
- make people aware of uncertainties associated with subsequent waves
- request and advocate for recovery assistance as required

C Strategies

The strategy during this period is to help people move toward hope for the future through actions they can take, and through the actions of all responders to the pandemic. Tactics that support this strategy for recovery may include:

- official announcement of end to emergency measures
- communication to residents and staff regarding the social and economic recovery plans
- announcements and notifications of gradual restoration of service
- information about possible relapse
- direct mail campaign
- healthy city social campaign with appropriate partners

D Key Messages

The focus is on recovery and rebuilding. Key messages include:

- Greater Sudbury is recovering from the pandemic
- this has been a difficult time for everyone
- Greater Sudbury continues to implement improvements in emergency planning
- recovery means that residents can again access both health care and municipal programs
- final death toll, other statistics
- remembrance messaging

E Media Relations

Once the pandemic ends, the media relations focus will shift to analysis and follow-up. Reports to Council and senior governments on the pandemic's impact on the City of Greater Sudbury and the response would be natural sources of further media interest. Recommendations for improvements, along with the associated issue of budgets and staffing, will also be a focus in this phase.

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Chapter 6

Infection Control

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Revised November 2006

6.0 Introduction

This chapter outlines the basic principles and practices of infection control related to influenza. General information on influenza is presented, including modes of transmission, communicability, incubation period and symptoms. If the pandemic virus behaves differently (e.g., different route of transmission, longer incubation period or period of communicability) infection control practices will be adjusted accordingly.

6.1 General Information on Influenza

A Influenza

Influenza, the flu, is a highly contagious and common respiratory illness caused by a virus. Understanding how influenza is spread can help people take precautions to prevent or minimize its transmission. See Chapter 1 for more information about influenza.

B Modes of Transmission

Influenza spreads when the infected respiratory secretions from the mouth or nose of one person come into contact with the mucous membranes (eyes, mouth or nose) of another person. The vast majority of influenza is spread from person to person by droplet spread or direct contact. Outside the body, the influenza virus may persist for some time, especially in conditions of low relative humidity and cooler temperatures. Specifically, the influenza virus can survive for 1-2 days on hard surfaces, 8-12 hours on soft surfaces, and 5 minutes on hands, resulting in some spread by indirect contact.

- **Droplet spread** refers to spray with relatively large, short range droplets produced by sneezing, coughing, talking or singing. These droplets may spray a distance of up to one metre (about three feet) before dropping to the ground.

- **Direct contract** occurs when there is immediate transfer of the virus through skin to skin contact or kissing. For example, an infected person may cough into his hand and then shake hands with another person who may then rub his/her eyes.

- **Indirect contact** occurs when the virus is transmitted from an infected person, on to an inanimate object, and then on to another person. For example, an infected person may blow their nose, then touch an elevator button and then another person touches the same elevator button and touches his/her eyes.

  There is controversy over the role of airborne transmission in spreading influenza. However, in community settings, airborne transmission is not generally thought to be a risk. It is in health care settings, when particular procedures are used (i.e. administration of nebulized medication), that this might be considered.

- Airborne transmission occurs when aerosolized, infected droplets of a small size < 5 µm (5 micrometers) in diameter remain suspended in air for long periods of times.

C Communicability

Communicability refers to the time period during which the influenza virus can be spread from an infected person to another person. Most adults infected with influenza can transmit the virus from 1 day before and up to 3-5 days after the onset of symptoms. This period may be longer (7 or more days) in children and some adults.

D Incubation Period

The incubation period for influenza is 1-3 days. This means that a person may develop symptoms of influenza 1-3 days after coming into contact with a person with the influenza virus.

E Symptoms

Infection with influenza can result in a wide range of illness. Some people might not have any symptoms. About half infected people will experience some symptoms. These include:

- sudden onset of fever, headache, chills, muscle aches, physical exhaustion and a dry cough
- subsequent onset of sore throat, stuffy or runny nose, and worsening cough
- children may also feel sick to their stomach, vomit or have diarrhea
- elderly and immune compromised people may not develop a fever
- most people recover in 5 - 7 days

6.2 Infection Control Practices for the General Public

There are a number of things people can do to prevent or reduce the risk of getting influenza. These are called "Infection Control Practices".

A Hand Hygiene

Hands should be washed frequently with soap and water, especially after coughing, sneezing, or nose blowing. Ideally, if hands are visibly soiled, they should be washed with soap and water. If no water is nearby, a 60% to 90% alcohol-based hand sanitizer can be used. The influenza virus is easily killed by soap, hand wash or hand sanitizer products, and household cleaning products. Therefore gloves or special antibacterial hand wash products are not needed. Hand washing/sanitizing is a very important method to prevent the spread of pandemic influenza before a vaccine becomes available. (See Appendix 4)

Hand Washing Procedure

1. Wet hands and wrist.
2. Apply soap.
3. Lather for 15 seconds. Rub in between fingers, the back of hands, wrists, and fingertips.
4. Rinse thoroughly.
5. Dry with paper towel, if available.
6. Turn taps off with paper towel, if available.
7. Open bathroom door using paper towel.
8. Discard paper towel in waste basket.

Hand Sanitizing Procedure

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

B Respiratory Etiquette

Mouths and noses should be covered when coughing or sneezing. This will help stop the spread of germs that can make people sick. It is important to keep a distance away from people who are coughing or sneezing. (See Appendix 5)

'Cover Your Cough' Procedure

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

C Avoid Touching Eyes, Mouth and Nose

Influenza spreads when the infected respiratory secretions from the mouth or nose of one person come into contact with the mucous membranes (mouth, nose or eyes) of another person. Without even realizing it, the infected nose and mouth secretions of someone who has influenza may be touched (e.g. pushing an elevator button). Afterwards, with the touching of mouth, nose or eyes, the influenza virus can gain entry into your body, causing infection.

D Stay Home When ILL to Avoid Infecting Others

Most adults infected with influenza can transmit the virus from 1 day before, and up to 3 to 5 days after, the onset of symptoms. This period may last for 7 or more days in young children and some adults. Some experts believe that the highest concentration of viral shedding occurs early on, and decreases quite a bit after 3 days of illness. However there is no clear data on how long a person should wait before returning to their usual activities (e.g. school, work) in order to minimize the risk of infecting others. The best advice at this time is that adults may return to their usual activities at least 5 days after the onset of symptoms (7 days for young children), or when they feel well enough to return to their duties, whichever is longer.

Please see Chapter 7 for information regarding self-care.

E Use of Masks

There is no evidence that the use of masks in general public settings will be protective when the influenza virus is circulating widely in the community. However it is acknowledged that individual people who are wearing a surgical mask properly at the time of an exposure to influenza may benefit from the barrier that a mask provides.

Recommendations as to the effectiveness of mask use may change over the course of a pandemic. Messages regarding the use of masks will be coordinated federally and communicated down to the local level to promote consistent practices. Presently, the federal and provincial plans recommend the use of surgical masks and eye protection for health care workers providing direct care (face-to-face contact) to patients with influenza-like illness. As well, the plans recommend that people who are ill with influenza like illness, who must leave their home to receive medical attention, should wear a mask. The plans do not recommend masks as a community-based disease control strategy. However the federal plan states that members of the public may wish to purchase and use masks for individual protection.

At this time the World Health Organization does not have a formal position on the issue of masks, but will likely be recommending evaluation of the effectiveness of mask use (and respiratory etiquette) with respect to prevention of cases, costs and alleviation of public concern.

Although masks may provide some reassurance to people, the effectiveness of this measure in preventing infection in the general community is unknown. If single-use masks are used, they should be discarded upon removal and must be changed if wet (because they become ineffective when wet). As well, people who use masks should be trained on how to use them properly to avoid contaminating themselves when removing the mask. In addition, there may be issues of access to masks due to cost or supply shortages and other feasibility concerns.

Further consideration should be given to the wearing of masks in community situations where potential exposure to infectious individuals is likely and unavoidable, eg. care of an ill family member, large public gatherings. Additional research needs to be done on this on an urgent basis.

F Get Vaccinated

The best way to protect your self from seasonal influenza is to get vaccinated every fall. The influenza vaccine (flu shot) is made from particles of killed flu viruses. It contains three different types of influenza viruses (two types of influenza A and one type of influenza B). Doctors and scientists around the world determine the strains of influenza virus that are circulating, and the vaccine is then prepared to protect against the types that are most likely to occur each year. A person who receives the flu shot develops immunity for the types of influenza in the vaccine. The body needs about two weeks to build up protection to the virus, and this protection may last for about four to six months. The influenza virus changes each year, so a different vaccine has to be used each year.

The influenza vaccine is available free of charge to anyone aged 6 months or older who lives, works or goes to school in Ontario. The vaccine is safe for pregnant women and those with mild nonserious febrile illness, such as mild upper respiratory tract infections. (Influenza vaccine should not be given to people who have had an anaphylactic reaction to a previous dose or who have known IgE-mediated hypersensitivity to eggs manifested as hives, swelling of the mouth and throat, difficulty in breathing, hypotension, or shock. Adults with serious acute febrile illness usually should not be vaccinated until their symptoms have abated.)

In the event of a pandemic strain of influenza, it is estimated that it will take approximately four to six months to produce a suitable vaccine. Initially, there will likely not be enough vaccine for everyone. The government has developed "priority groups" to determine the order in which people will receive the pandemic influenza vaccines. Currently the priority groups, listed in order of highest to lowest priority, are: health care workers, essential service workers, persons at high risk of serious illness, healthy adults, and healthy children. Sudbury & District Health Unit will work with hospitals and other organizations to ensure that vaccine priority groups receive vaccine. When enough vaccine becomes available, SDHU will organize mass vaccination clinics in order to vaccinate the general public. SDHU will make public announcements about the time and location of these clinics.

G Environmental Cleaning When Caring at Home for a Person with Known or Suspected Influenza

A person who is sick with influenza may contaminate their surroundings with respiratory secretions from their mouth and nose. As mentioned earlier in this chapter, the influenza virus can live for up for 5 minutes on hands, 8 to 12 hours on soft surfaces, and up to 2 days on hard surfaces. Therefore, some additional cleaning measures should be taken if there is someone in your household with suspected or confirmed influenza. **Remember that frequent and careful hand washing/sanitizing is the single most important method to prevent the spread of pandemic influenza before a vaccine becomes available.**

Housekeeping

- Environmental surfaces (e.g. bathroom counters) and objects (e.g. door knobs) that have been touched by a person with known or suspected influenza should be cleaned every day with your regular household cleaning agent.

Laundry

- Special handling of clothes and linens used by a person with known or suspected influenza is not needed.
- If an item is heavily soiled it should be rolled or folded to contain the heaviest soil in the centre of the bundle. Large amounts of solid soil, which may include faeces (stool) or blood clots, should be removed from the item with a gloved hand and toilet tissue, and then placed in a bed pan or toilet for flushing. In order to prevent splashing, solid soil should not be removed by spraying with water.

- Use of commercial laundry detergent (according to product instructions and where suitable for fabrics) and a normal machine wash are enough to clean soiled clothing and linens in the home.
- Following machine washing, machine drying or hanging clothing and linens on a clothes line at home are suitable methods for drying.

Waste

- Waste created by a person with known or suspect influenza does not need any special handling and may be placed with your regular household waste for disposal.
- Medical sharps, which may include used syringes and needles, may be used in the care of someone with known or suspected influenza. It is the City of Greater Sudbury's policy that medical sharps cannot be picked up as part of your regular waste collection, as they pose a serious hazard to the collector. Therefore, all medical sharps must be placed in a tightly sealed and labelled, hard, shelled container. Examples of containers include plastic pop bottles or plastic bleach bottles that have been rinsed out. Once the sharps have been put inside the bottle, screw the cap on tightly. Do not forget to put a label on the bottle which clearly states what is inside (e.g. used syringes and needles). Drop these containers off at the City's Household Hazardous Waste Depot or for more information go online at: http://www.greatersudbury.ca/wastemanagement

6.3 Infection Control Practices for Community Settings

Community settings (e.g. emergency responders, child care settings, mortuary care workers, schools and student residences, and workplaces) should already have developed infection control and occupational health plans for managing pandemic influenza. Refer to Annex F: Infection Control and Occupational Health Guidelines during Pandemic Influenza in Traditional and Non-Traditional Health Care Settings, Part B of the Canadian Pandemic Influenza Plan (2004) for specific guidelines by each setting. This document can be accessed online at: http://www.phac-aspc.gc.ca/influenza

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Chapter 7

Self Care

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Revised November 2006

The information provided in this chapter outlines signs and symptoms of probable influenza and basic advice on care.

7.1 Background Information

An influenza pandemic occurs when a new influenza virus appears for which the human population has little or no immunity. As a result, large numbers of people will likely become sick. In the Sudbury District alone, in the case of a very severe attack (15-35%), it is predicted that 31,000 to79,000 would become sick. As a result, the health care system will face huge demands for services. The system will be under additional strain due to a reduction in the number of health care workers who are themselves sick or off work in order to care for sick family members.

It is estimated that

- about 45% of people who get sick with influenza will not require medical care, but will need health information and advice.
- about 53% will require outpatient or primary care (e.g., treatment by a family doctor).
- 1.5 to 2% will need to be hospitalized.

The purpose of this chapter is to provide some basic health information and advice for people who are sick at home with influenza or are caring for a sick person in their home.

7.2 How Do I Know if I Have Influenza?

Symptoms

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

- sudden onset of fever, headache, chills, muscle aches, physical exhaustion, and a dry cough
- subsequent onset of sore throat, stuffy or runny nose, and worsening cough
- children may also feel sick to their stomach, vomit or have diarrhea
- elderly and immune compromised people may not develop a fever
- most people recover in 5 - 7 days

It is likely that you or a family member have influenza if Sudbury & District Health Unit has announced that pandemic influenza is circulating in our community and you have the following symptoms:

a sudden onset of:

- fever (>38° C) **and**
- cough **and**
- one or more of the following: sore throat, muscle aches, or fatigue and physical exhaustion

7.3 How do I Know if I Have a Fever?

Fever related to an illness is a sign that the body is fighting an infection. Sometimes we think someone has a fever by simply touching their forehead or neck but it is important to confirm a fever by checking their temperature. We can measure a person's temperature by using a thermometer placed in the mouth (oral), the ear (tympanic), under the armpit (axillary), or in the bum (rectal). The use of glass mercury thermometers is not recommended as mercury is a toxic substance and there is a risk that glass may be easily broken. Ideally, a digital thermometer should be used to taking oral, axillary or rectal temperatures. A special ear thermometer should be used for taking a tympanic temperature. You can buy a thermometer at your drug store.

You or your child has a fever if:

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

7.4 What Can I Do at Home to Treat a Fever?

- dress in lightweight clothing and keep the room temperature around 20° C.
- drink plenty of cool fluids in order to replace fluids lost in sweat. If the person who is sick has urine (pee) that is darker than usual, they need to drink more fluids.
- as people sick with flu may not be very hungry, offer small, nutritious meals.
- to decrease fever and pain, you may want to take acetaminophen (e.g. Tylenol™ , Tempra™). Use the dose and schedule recommended on the package or by your doctor or pharmacist. Ibuprofen (e.g. Advil™, Motrin™) may be used for children older than six months and for adults. Do not give acetylsalicylic acid, also known as ASA, (e.g. Aspirin™) to anyone under 18 years of age with the flu because it can lead to brain and liver damage (Reye's Syndrome)

7.5 How Can I Treat Other Symptoms of Influenza?

- there are many over-the-counter cough and cold medicines sold in drug stores and other stores that do not require a doctor's prescription. These include things like decongestants, cough syrups, nasal drops, and antihistamines. **These medicines do not necessarily work and may not be safe in some cases.** Check with you pharmacist or doctor before giving these medicines to anyone else or taking them yourself. This is especially important for anyone under 12 years of age, or on prescription medications, or with a chronic medical condition.
- get plenty of rest.
- gargle with salt water if you have a sore throat.
- use a cool mist humidifier to help with a stuffy nose.
- if a baby is having problems breathing because of a stuffy nose, use a rubber suction bulb to clear the mucous. These are available at drug stores. You may also use saline nose drops or spray if the mucous is very thick.

7.6 When Should I See a Doctor?

The decision of when to see a doctor may be influenced by many factors, like age, existing health problems, or current medications, to name a few. Below are some points to think about when you are trying to decide whether or not you need to seek medical advice. You may get advice from your family doctor/general practitioner or Telehealth Ontario's confidential telephone service (available 24 hours per day, 7 days per week) at 1-866-797-0000. If your symptoms are severe and you think you need immediate attention, go to the closest hospital emergency department or call 911.

Adults

If you are a **normal healthy person** and have been suffering with the flu, it is time to call your doctor, health line or 911 if you:

- experience shortness of breath while resting or doing very little
- experience difficult or painful breathing
- are coughing up bloody sputum (phlegm)
- are wheezing
- have had a fever for three or four days and you are not getting better or you may be getting worse
- have started to feel better, and suddenly you get a high fever and start to feel sick again
- it is noted that you are extremely drowsy and difficult to wake up or that you are disoriented and confused
- have extreme pain in your ear

Seek medical attention as soon as possible in order to prevent your condition from worsening. Bacteria may have infected your damaged tissues. At this point your doctor may consider giving you an antibiotic.

If you have heart or lung disease or any other chronic condition that requires regular medical attention; if you are frail, if you have an illness, or if you are on treatments or medications that affect your immune system and you get the flu, call your doctor.

If you are living with a long-term illness, your doctor may suggest changes to your usual management routine and/or provide you with extra help in treating the flu and preventing complications, such as prescribing an antiviral medication. Antiviral medications must be taken within 48 hours of the first symptoms to be effective, so call your doctor right away.

Children

The Canadian Paediatric Society recommends that you should contact your doctor or take your child to the emergency department if your child has symptoms of influenza and:

- has lung or heart disease, has an illness or is taking treatment that affects the immune system, takes acetylsalicylic acid (ASA or Aspirin) regularly for a medical condition or has any other chronic illness requiring regular medical care.
- is less than 3 months old and has a rectal temperature over 38.5° C.
- has trouble breathing when resting, is wheezing, has chest pain when breathing or is coughing up bloody sputum (phlegm).
- drinks very little fluid and has not urinated at least every 6 hours when awake.
- has been vomiting or has severe diarrhea.
- is constantly irritable and will not calm down.
- is listless, not interested in playing with toys or unusually sleepy.
- still has a fever and is not feeling better after 5 days or was feeling better and suddenly develops a new fever.

Take your child immediately to a hospital emergency department or call 911 if your child:

- has severe breathing trouble or blue lips
- is limp or unable to move
- is hard to wake up or does not respond
- has a stiff neck
- seems confused
- has a seizure (convulsion/fit)

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Chapter 8

Vaccine and Antiviral Medication

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Revised November 2006

8.0 Introduction

Antivirals (anti-influenza drugs) can be used to treat and prevent influenza, and will be an important disease management strategy during an influenza pandemic - particularly during the early wave(s) when vaccine is not available. We do not yet know how effective antivirals will be against the pandemic strain but, when used to treat seasonal influenza, they have been shown to reduce the length of time people are ill, symptoms and hospitalizations.

Ontario is working with the federal government to develop an antiviral stockpile that will be large enough to treat 25% of the population, as recommended by the World Health Organization. This represents the proportion of the population who will be sick enough to need antiviral treatment. Although antivirals can be used both for treatment and prophylaxis (prevention), Ontario will use its supply primarily for treating people who are ill.

Vaccine is the most effective means to prevent disease and death from influenza during a pandemic; however, it will take four to five months after the pandemic strain is identified to develop a vaccine so it will likely not be available for the first wave. We do not know how effective the vaccine (once developed) will be against the pandemic strain, but vaccines for seasonal influenza usually prevent illness in 70 to 90% of health adults.

8.1 Antivirals

Supply

The federal government is responsible for approving and licensing antivirals. At the current time, two antivirals are licensed for use in Canada for prophylaxis and treatment of influenza A infections: amantadine and oseltamivir (Tamiflu), a neuraminidase inhibitor (neuraminidase inhibitors are much more expensive than amantadine). When administered within two days (48 hours) of the onset of illness, both amantadine and neuraminidase inhibitors (e.g., oseltamivir) are effective in reducing length of illness and hospitalization and, in the case of oseltamivir, influenza complications, but resistance to admantadine can develop when the drug is used for treatment during annual influenza season. The strain of avian influenza responsible for the recent outbreak strain in Asia (H5N1) is resistant to amantadine in laboratory. Another antiviral, zanamivir (Relenza) is licensed for treatment only - and is the recommended treatment for pregnant and lactating women. A fourth antiviral, rimantadine is not currently licensed in Canada.

Because of amantadine's side effect profile and individual dosing requirement, oseltamivir (Tamiflu) is the drug of choice for most people during a pandemic. Clinicians may consider other drugs, based on their clinical expertise and judgment.

Based on consultation with chief medical officers of health, the Public Health Agency of Canada is now working with the provinces to establish a national antiviral stockpile, with a target of having enough supplies to treat 22% of the population.

Ontario has committed to maintaining a stockpile large enough to treat up to 25% of the population, and has placed orders to purchase more antivirals (in addition to its share of the national stockpile). The stockpile will consist primarily of oseltamivir, but the Ministry of

national stockpile). The stockpile will consist primarily of oseltamivir, but the Ministry of Health and Long-Term Care is also purchasing a supply of zanamivir to diversify the stockpile and provide appropriate treatment for pregnant and lactating women. The stockpile will be complete in 2009.

Governments are also collaborating to learn more about:

- the impact of antivirals in preventing serious health outcomes during an influenza pandemic
- how to manage the stockpile (i.e., the shelf life of antivirals, how often to turn over supplies).

Storage and Distribution

To be effective, antivirals must be started within 48 hours of the onset of symptoms, and the earlier they are started, the more effective they are. To provide timely treatment, Ontario must have an effective distribution system for antivirals.

During a pandemic, the Ministry Emergency Operations Centre (MEOC) will be responsible for coordinating the distribution of antivirals across the province, and public health units will be responsible for coordinating the distribution among health care organization at the local level. The distribution system will address distribution of antivirals to special populations, including those under federal jurisdiction (e.g., armed forces, First Nations, RCMP).

Should a pandemic occur before Ontario's stockpile is complete, antivirals for treatment will be distributed according to the available epidemiological evidence (e.g., priority may be given to those likely to develop complications from influenza) and in accordance with the ethical framework for decision-making described in Chapter 2 (*of the Ontario Health Plan for an Influenza Pandemic September 2006*).

8.2 Vaccine

Immunization Strategies

In the fall of 2000, Ontario began offering a free influenza immunization to anyone in the province over the age of 6 months with no contraindications to influenza immunization. The program, known as the Universal Influenza Immunization Program (UIIP), provides approximately five to six million doses of trivalent influenza vaccine a year.

Ontario will continue to actively promote annual universal influenza immunization, particularly with groups identified by the National Advisory Committee on Immunizations (NACI) as being at high risk of complications from influenza. Annual influenza immunization will reduce the morbidity, mortality and demands on the health care system from seasonal influenza strains.
Ontario will also promote pneumococcal vaccination of NACI "high-risk" groups during the interpandemic period to reduce the incidence and severity of secondary bacterial pneumonia in people with influenza.

Supply

The federal government is responsible for vaccine procurement and supply, including developing the domestic infrastructure, maintaining a standby supply of fertilized hens' eggs ready to convert into vaccines, phasing in new technologies, and ensuring security of supply (i.e., via a pandemic contract). In case of a pandemic, the domestic supplier (IDBiomedical) guarantees to manufacture 8 million (+/- 10%) monovalent doses, per month, for a period of 4 months starting within 4 to 5 months after the receipt of the pandemic seed strain for Canada.

In October 2001, Ontario signed a Memorandum of Understanding to participate in the Canadian influenza vaccine procurement and supply process. That agreement runs until March 2011.

To immunize the entire province, Ontario would require 24 million monovalent doses (based on two doses per person, over approximately four months).

Access

Each year, the National Advisory Committee on Immunization (NACI) makes recommendations (published in the *Canada Communicable Disease Report*) on priority groups for influenza immunization (i.e., persons who are most at risk for influenza, those who could spread influenza to persons at greatest risk). In the event of a pandemic, the Pandemic Influenza Committee, which includes representation from NACI, will make recommendations to federal/provincial/territorial governments on priority groups for immunization based on the epidemiology of the pandemic strain.

Ontario's goal is to obtain enough vaccine for the entire population but, during the early stages of a pandemic, vaccine will be in short supply. In this situation, the province will follow the national recommendations for priority groups for influenza immunization, adapting them as required to meet provincial needs. It will also use the ethnical framework (*see Chapter 2 of the Ontario Health Plan for an Influenza Pandemic September 2006*) to guide the decision-making process.

Distribution and Administration

Ontario has a vaccine distribution system in place to support its Universal Influenza Immunization Program. A similar system will be used to distribute vaccine during a pandemic, with some changes. In the current system, vaccine is shipped directly to the public health units only (except in Toronto, where vaccine is also shipped directly to physicians). The health units then distribute vaccine to physician offices, workplace clinics, and a variety of other settings where immunization services are provided. During a pandemic, Ontario will use primarily a "Pull" strategy to ensure best use of available resources: influenza vaccine will be sent only to public health units, which will organize mass vaccination clinics, and people will attend the clinics to be immunized. Other vaccines (e.g., pneumococcal) will continue to be administered through current channels.

The province has developed an Emergency Mass Vaccination/Prophylaxis Plan that will address any issues or gaps in vaccine and antiviral distribution, such as security issues and timely distribution to remote communities (*see Chapter 9A: Antivirals and Vaccine Tools of the Ontario Health Plan for an Influenza Pandemic September 2006*). Provincial and local vaccine distribution plans will also include steps to reach special populations, such as those that fall under federal jurisdiction (e.g., armed forces, First Nations, RCMP) and people who are homeless.

Adopted from: Ministry of Health and Long-Term Care (Ontario Health Plan for an Influenza Pandemic September 2006) http://www.health.gov.on.ca