

Pandemic Influenza Preparedness Update

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To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

This report updates the Board of Health on issues affecting the City of Toronto's ability to respond to an influenza pandemic. The City is guided by the directions set out by the federal and provincial governments in their respective Pandemic Influenza Plans. This report provides an overview of the draft operational plan for influenza assessment, treatment and referral centres (to be known as community flu centres). The report also provides an update on the status of the City's plans to stockpile infection control equipment and supplies for use during a pandemic, outlines recent TPH initiatives to enhance coordination within the health care sector and describes other planning and preparedness activities that are underway.

Financial Impact

There are no financial implications arising from this report.

DECISION HISTORY

At its meeting of January 31, 2006, City Council adopted the Pandemic Influenza Plan for the City of Toronto (Policy and Finance Committee Report No. 1, Clause No. 14). The Board of Health has requested that the Medical Officer of Health provide monthly verbal updates and quarterly written reports on the state of preparedness for an influenza pandemic. This is the third quarterly report for 2007.

ISSUE BACKGROUND

Influenza is a highly contagious respiratory illness caused by a virus which is constantly changing and mutating. An influenza pandemic occurs when there is an abrupt and major change in the protein structure of the Influenza A virus resulting in a new subtype. Since people have little or no immunity to this new strain, it can spread quickly causing

outbreaks. This is called a pandemic. The exact nature of the pandemic virus and illness will not be known until it emerges. Influenza pandemics occur in two or three waves over a period of months to a year or more. An effective vaccine would likely take four to six months to become available. Because health care services in Toronto are currently working at or near capacity, pandemic influenza could overwhelm the system.

Pandemic strains of influenza tend to emerge three or four 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.

A strain of avian influenza known as H5N1 has been spreading in bird populations globally. To date, there is no evidence that this virus has the ability to spread efficiently from person to person.

COMMENTS

A) Surveillance Update

The world remains at pandemic alert Phase 3 according to the World Health Organization. This means that there are cases of human infection(s) with a new subtype, but no human-to-human spread or at most rare instances of spread to a close contact. There is currently no pandemic or highly pathogenic H5N1 avian influenza in North America.

Human Cases: As of June 15, 2007, the WHO reports a total of 313 human cases of H5N1 avian influenza and 191 deaths (an increase of 35 human cases and 23 deaths since last report in April). So far for 2007, 50 cases have been reported. To date, the WHO has confirmed human infection in twelve countries (two new countries in 2007: Nigeria and Lao People's Democratic Republic).

The majority of 2007 cases have affected young adults. Confirmed cases with known exposures in 2007 have acquired their infection following contact with diseased birds. The case fatality rate in 2007 for confirmed cases varies by country, ranging from 25.0% to 100%, with an overall rate of 66.0%.

Animal Cases: Since January 2004, a total of 65 countries have identified highly pathogenic H5 infection in domestic and/or wild birds. There have been no cases identified in Canada. Since the last report no countries have reported a first case of highly pathogenic H5N1 in bird populations and the following countries reported a re-emergence of the virus in bird populations: Bangladesh, China, Ghana, Japan, Kuwait, Pakistan, Saudi Arabia, Turkey, United Kingdom and Vietnam. Except in China, human cases have not been reported associated with the reemergence of the disease in these areas.

B) Federal and Provincial Developments

A new version of the Ontario Health Pandemic Influenza Plan (OHPIP) is expected to be released by the Ministry of Health and Long-Term Care this summer. The updated plan will likely contain more detail on what expenses the Province will fund in the operation of community flu centres and provide clearer direction on recommended personal protective equipment for health care workers. However, many of the significant issues regarding the operation of community flu centres including scope of practice, liability and malpractice insurance are still under provincial review and remain unresolved.

Resolution of the question of offering prophylactic antiviral medications to health care workers and other essential service staff is still pending the development of a national policy. A federal-provincial-territorial task force has conducted a comprehensive review of the legal, ethical, scientific and logistical issues involved and has made recommendations to the Council of Chief Medical Officers of Health. A policy decision is expected by the fall of 2007.

C) City of Toronto Developments

City Coordinating Groups

To better coordinate City preparedness activities, the City Manager has established two new coordinating groups. The Pandemic Influenza Steering Committee provides overall policy direction to pandemic planning. The Steering Committee is composed of the City Manager and the three Deputy City Managers, the Medical Officer of Health, the Director of Communicable Disease Control and AMOH, as well as representatives of Human Resources, Employee and Labour Relations, the Office of Emergency Management, Purchasing and Materials Management, Strategic Communications and the City Manager's Office. Representatives of the City unions and association will also be invited to participate in the Steering Committee.

The Pandemic Influenza Core Working Group makes recommendations to the Steering Committee, and includes representatives of many of the groups on the Steering Committee.

Stockpiling

On June 13, 2007, the City Steering Committee approved in principle the recommendations of the Medical Officer of Health on stockpiling of personal protective equipment and infection control supplies for use by City of Toronto staff in the event of a pandemic.

Also on June 13, Budget Committee recommended to Executive Committee the transfer of \$5.0 million to a pandemic preparedness account within the Emergency Planning Reserve Fund. This funding will be used to establish an inventory of necessary materials and supplies to be used during a pandemic.

The specific recommendations on stockpiling have been developed from the perspective of maximizing occupational health and safety and were guided by the “precautionary principle.”

General Measures

During a pandemic all City staff will be provided with information on infection prevention and control as well as supplies such as alcohol-based hand sanitizers, tissues, access to hand soap and a waste receptacle.

Personal Protective Equipment

While there is no evidence in the literature to prove that airborne transmission of influenza occurs, it is nevertheless possible. A precautionary approach would include protection against the possibility of aerosol transmission. A properly fitted N95 mask (or its equivalent) would provide greater protection against possible transmission in enclosed indoor spaces.

City of Toronto staff who, as part of their work, are expected to provide care to persons ill or suspected of being ill with influenza will be provided with properly fitted N95 masks or their equivalent. Those employees would include most staff from Toronto Public Health, Emergency Medical Services, Toronto Fire Services, and staff working in Homes for the Aged, child care centres and emergency shelters. Some other civic employees may also fall into this category if required, for example, to work at a community flu centre.

Once the Medical Officer of Health has advised that a pandemic has reached Toronto and that a risk exists for City workers, a supply of surgical masks will be available for staff who become sick at work as well as for the use of employees in the workplace. To fully understand the benefits and uncertainties in the use of personal protective equipment, City officials and the representatives of City unions will meet with technical experts to review current scientific research.

Antiviral Medication for Prophylaxis

The Medical Officer of Health has recommended that the City of Toronto stockpile antiviral medications for use as prophylaxis by employees who are providing care to persons who are ill or suspected of being ill with influenza.

However, the most recent iterations of the Canadian Pandemic Influenza Plan and the Ontario Health Pandemic Influenza Plan focus on the use of antiviral medications for treatment rather than prophylaxis and the issue is still under discussion and review at the national level. This review will likely dictate how any City stockpiles of antivirals can be used.

Assessment Centres

In December 2006 a letter from the Ministry of Health and Long-Term Care recommended that Toronto Public Health take the lead for planning the implementation of influenza assessment, treatment and referral centres in Toronto but noted that TPH

would not necessarily lead the management of the centres in the event of a pandemic. The local planning for assessment centres or “community flu centres” has been coordinated by the Assessment Centre and Alternative Care Subcommittee of the Toronto Pandemic Influenza Advisory Group.

TPH organized and hosted five planning consultation sessions in February and March 2007, involving stakeholders from a variety of sectors. Participants provided input into the operational plan which was then endorsed in principle by the Advisory Group on May 11. The plan was also reviewed at a larger meeting of representatives of the health care sector hosted by TPH on June 13.

The function of the flu centres, as outlined in the plan, is to:

- 1) Assess clients with influenza-like symptoms and triage ill individuals to the appropriate type and level of care.
- 2) Stream ill individuals away from traditional health care sites such as hospital emergency departments, physicians’ offices and walk-in clinics.
- 3) Provide access to self-care information and treatment for clients who are not ill enough to require hospital care.
- 4) Distribute antiviral medication and flu kits, which may include a fluid replacement drink, as well as anti-fever, anti-nausea, and anti-diarrheal medications.

The criteria for opening the centres would include:

- 1) Confirmed cases and transmission of the pandemic influenza strain in the City of Toronto
- 2) Declaration of an emergency by the Province of Ontario

Initially, four clinics would likely be opened in different parts of the city. Triggers will be identified for increasing the number of clinics. Additional centres would be probably be added in multiples, generally by doubling the number, i.e. going from 4 clinics to 8 clinics to 16 clinics to 32 clinics etc.

The plan describes many of the operational details of how the flu centres would function and identifies the items which require further planning. For example, the plan outlines:

- 1) Client flow patterns.
- 2) Draft client record forms.
- 3) Management structures for the centres.
- 4) Various security issues associated with operation of the centres.

Next steps in the development of the operational plan for flu centres include:

1) Site locations

TPH staff are now modelling projected infection rates to help estimate the number of sites required. Staff will work with Facilities and Real Estate to assess City-owned space as potential sites. Criteria for selection include the availability for use when required; accessibility; appropriate electrical, ventilation and plumbing and communications systems; internal space large enough to be configured for efficient client flow; and suitability from a security perspective. Memoranda of understanding will be signed for the use of prospective sites. A security plan must be developed for centre sites.

2) Equipment and supplies

When funding arrangements with the Province are clarified, TPH staff will work with MOHLTC and Purchasing and Materials Management to obtain the needed equipment and supplies. Storage locations must be found.

3) Human Resources

A staffing model will be developed.

Health Sector Coordination

Survey

The Ministry of Health and Long-Term Care has assigned public health units the responsibility for coordinating the local response to an influenza pandemic including assessing the capacity of local health services and helping them identify additional/alternative resources. In May 2007, Toronto Public Health surveyed representatives of acute care facilities, long-term care homes, community care access centres, community health centres, and Emergency Medical Services on the state of their preparedness and on the issues they were facing. Ninety-five individuals (33% of those surveyed) responded to the survey.

The survey provided a snapshot of the state of health sector planning in Toronto. When asked to describe the progress their organization has made in developing a pandemic plan, 55% of the representatives of hospitals surveyed said their plans were complete; 41% said their plans were in progress and 7% had made little or no progress. Twenty-nine per cent of representatives of long-term care facilities reported their plans were completed; 38 % said their plan was still in progress and 33% reported little or no progress. Of the four community health centres that responded, one had completed a plan; two had a plan in progress and one had made little or no progress.

The survey made clear that health sector partners are facing similar challenges. Asked about the key obstacles to pandemic preparedness in their organization, most representatives of acute care facilities identified lack of coordination and lack of dedicated human resources; most representatives of long-term care facilities identified funding (mainly for stockpiling) and lack of dedicated human resources; community health centres identified the lack of policy guidelines and coordination.

In general there was a recognized need to increase the level of coordination between health care sectors in pandemic planning.

Toronto Pandemic Influenza Health Sector Meeting

On June 13, TPH hosted a meeting of representatives of the health care sector to explore how coordination can be enhanced. Thirty-five representatives of hospitals, long-term care homes, rehabilitation facilities, community health centres, community care access centres, community physicians, local health integration networks, pharmacies, laboratories and ambulance services met with TPH staff in a day-long session. There was strong agreement among the participants that four key issues need to be addressed:

1) Need for enhanced communication

During a pandemic there will need to be a two-way flow of information between the various components of the health care system and the City's Emergency Operations Centre and TPH. Health care facilities and providers will need to receive the most current information on the pandemic and, at the same time, provide City officials with a current assessment of the impact of the pandemic on the health care system at the local level.

2) Need for local-area planning

The size of Toronto makes coordinated planning on a city-wide scale difficult and complex. The meeting agreed on the need for identifying smaller geographic areas within which more localized planning could take place by the various components of the health care system.

3) Enhanced inter-sectoral planning

A pandemic will place tremendous strain on acute-care facilities, long-term care homes and home care services. These sectors face a series of inter-connected issues such as lack of capacity, the difficulty in transferring patients and the need to treat individuals in place. Hospitals, long-term care homes and community care access centres need to meet to plan how to better coordinate their responses to a pandemic.

4) Broadening the scope of treatment at flu centres

The draft operational plan for flu centres proposes that certain target populations such as pregnant women and immuno-compromised individuals be directed to secondary assessment centres at hospitals for treatment. The participants at the June 13 meeting recommended that the scope of flu centres should be broadened so that they can treat these groups as well as other vulnerable groups such as the homeless.

Toronto Public Health will play a lead role in moving action forward on these key issues. The participants at the June 13 meeting agreed to meet again in the fall to further discuss coordination of the health care sector.

D) Other Activities

The progress achieved in preparedness planning is summarized in Attachment 1, grouped under headings which reflect TPH core activities related to pandemic influenza:

- 1) TPH internal planning and preparedness
- 2) City of Toronto planning and preparedness
- 3) Linkages with the health care system
- 4) Working with the community

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ATTACHMENT

Attachment 1: Pandemic Influenza Planning Status Update (June 22, 2007)

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Pandemic Influenza Planning Status Update (June 22, 2007)

1. Toronto Public Health (TPH) Planning and Preparedness

	Activity	Progress since last report	Next steps	Issues pending Federal or Provincial direction
Disease Surveillance and Reporting	Weekly Summaries	Toronto Public Health produces, circulates and posts on its website a weekly summary of global events of interest to pandemic surveillance.	This activity is being maintained on an ongoing basis.	
	School Absenteeism Data	TPH is working with the Toronto Catholic District School Board and the Toronto District School Board on the development of an absenteeism pilot project scheduled to be implemented for the 2007/08 school year.		
Operational Preparedness	Incident Management System (IMS) assignments and training		<ul style="list-style-type: none"> ▪ Training of management personnel for specific roles will begin in the fall of 2007. 	
Mass Vaccination Clinics	Memoranda of Understanding with School Boards	<ul style="list-style-type: none"> ▪ On May 28 Executive Committee recommended to Council that the City Manager be authorized to sign MOUs for the use of emergency facilities. 	<ul style="list-style-type: none"> ▪ City Council was to consider Executive Committee's recommendation at its meeting of June 19. 	
	Planning		<ul style="list-style-type: none"> ▪ Identify potential staff for clinics including City employees and non-traditional vaccinators. ▪ Develop data management system. 	<ul style="list-style-type: none"> ▪ Depending on the availability of vaccine, additional staff may be required to operationalize the clinics. ▪ Scope of practice and liability issues regarding vaccinators.

1. Toronto Public Health (TPH) Planning and Preparedness

	Activity	Progress since last report	Next steps	Issues pending Federal or Provincial direction
Assessment, Treatment and Referral Centres	Planning	<i>(see report)</i>	<ul style="list-style-type: none"> ▪ Identify potential site locations. ▪ Identify and purchase equipment and supplies. ▪ Fully develop staffing model and identify sources of personnel. 	<ul style="list-style-type: none"> ▪ Issues related to staffing, legal status, equipment, supplies, and budget remain unresolved. ▪ Mechanisms for the distribution of antiviral medications for early treatment.
Health Risk Assessment and Communications	Public Education Campaign		<ul style="list-style-type: none"> ▪ Consider further public education initiatives on basic infection control, e.g. the Sleeve Sneeze campaign. ▪ Disseminate multilingual infection control signs. 	
Public Health Measures	Participate on the MOHLTC Public Health Measures Work Group	TPH staff attended a meeting of the provincial Public Health Measures work group April 18.	Provide input to the next iteration of the Ontario Health Pandemic Influenza Plan expected to be released this summer.	
TPIP	Updating TPIP	Revision of Toronto Pandemic Influenza Plan (TPIP) is well underway.	The next iteration of TPIP is scheduled to be presented to the Board of Health in the fall of 2007.	

2. City of Toronto Planning and Preparedness

	Activity	Progress since last report	Next steps	Issues pending Federal or Provincial direction
Occupational Health and Safety	Employee Education and Communications	TPH is providing sessions for joint health and safety committee members in Clusters B and C.	Three additional large-scale sessions will be held to complete the committee education process in clusters A, B and C.	
Human Resources Policy	Policy Development and Consultation	As a follow-up to the City Manager's meeting with the City's unions and association, meetings are being scheduled and have begun to occur with Locals 79, 416, and 3888 and COTAPSAI. The objective of the meetings will be to discuss what planning efforts are occurring across the City and to develop a protocol for consultation during the planning process.	Further steps to be determined by Corporate Human Resources.	
Stockpiling	Stockpile Equipment for pandemic influenza and Tier 1 Operations	<i>(see report)</i>	Purchase equipment and supplies for stockpiling.	

3. Linkages with the Health Care System				
	Activity	Progress since last report	Next steps	Issues pending Federal or Provincial direction
Physician Communication and Engagement	Outreach/Consultation	<ul style="list-style-type: none"> Physician Communication and Engagement subcommittee met June 1. Met with representatives of the College of Physicians and Surgeons of Ontario to: <ul style="list-style-type: none"> a) request that the CPSO add email address and fax number fields to the Mandatory Questions in the Annual License Renewal Form, and b) request that the CPSO share the fax and email information of local physicians with TPH to enable it to communicate with physicians quickly and effectively. Advocated with the Public Health Agency of Canada to develop an educational module for physicians on pandemic influenza. Communicated with MOHLTC to clarify the capabilities of the provincial publication tool. Piloted the use of a private company to send a measles alert to physicians by fax and email. 	<p>Develop subcommittee workplan for the next several months.</p> <p>Follow up with MOHLTC re publication tool.</p> <p>Evaluate results of pilot with private company.</p>	Inability to communicate with all physicians in a timely manner.
Engagement of the Health Care Sectors	Cross-sectoral planning	<ul style="list-style-type: none"> TPH surveyed health sector partners on status of preparedness planning. 	<p>Work on key issues identified at June 13 meeting:</p> <ul style="list-style-type: none"> Need for enhanced 	

3. Linkages with the Health Care System				
		<ul style="list-style-type: none"> ▪ TPH organized and hosted a health sector meeting on coordination on June 13, 2007. <i>(see report)</i> 	<p>communication.</p> <ul style="list-style-type: none"> ▪ Need for local-area planning. ▪ Enhanced inter-sectoral planning. ▪ Broadening the scope of treatment at flu centres. 	

4. Working with the Community				
	Activity	Progress since last report	Next steps	Issues pending Federal or Provincial direction
Homeless and Housing Service Providers	Education and Information Sharing	<ul style="list-style-type: none"> ▪ Meeting of Infectious Diseases Preparedness Community Reference Group held May 28. ▪ AMOH Lisa Berger made a presentation to a national conference on homelessness in Washington, D.C. on care for the homeless during a pandemic 	Reconvene the Homeless Subcommittee to further develop strategy for shelters, drop-ins, boarding houses and rooming houses.	
Sectoral Planning	Planning Guides	<ul style="list-style-type: none"> ▪ Over 2,100 revised sectoral planning guides have been distributed: <p>Day Nurseries — 1,350 Colleges & Universities — 225 Funeral Homes and Crematorium Services — 80 Correctional Facilities — 50 Schools — 446 a) Toronto Catholic District School Board — 210 b) French Schools — 36 c) Private — 200</p>	<ul style="list-style-type: none"> ▪ Revised planning guides for community health centres and for City divisions and ABCs will be finalized. ▪ Ongoing revision of guides as required. 	