TORONTO

STAFF REPORT
ACTION REQUIRED

Pandemic Influenza Preparedness Update

Date:	February 6, 2008
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

The report updates information on the spread of avian influenza and outlines the progress TPH has made in its preparedness activities since the last report to the Board of Health.

This report also identifies issues that affect the capacity of Toronto Public Health (TPH) to respond effectively to an influenza pandemic. Some of the issues relate to responsibilities assigned to local health units by the Ministry of Health and Long-Term Care (MOHLTC) which are outside their traditional mandate and expertise. Other issues impeding pandemic planning relate to the absence of clear policy direction from other orders of government.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Chair of the Board of Health request that the MOHLTC reconsider the operation of flu centres by local public health units and examine other means of assessment, treatment and antiviral distribution, building on the existing health care infrastructure.

2. The Chair of the Board of Health request that the MOHLTC immediately convene a surveillance workshop with relevant stakeholders to develop minimum data requirements and to recommend an information system to be used on an interim basis should a pandemic occur prior to the new information system being in place.

3. Chair of the Board of Health request that the MOHLTC accelerate work on their Publication Facility, with a priority on establishing a mechanism to ensure that all Medical Officers of Health (MOH's) can communicate with physicians in their health unit in a timely fashion.

4. The Chair of the Board of Health request that the MOHLTC assign responsibility and provide adequate resources to Local Health Integration Networks to coordinate the health care system planning and response in a pandemic.

Financial Impact
There are no financial implications arising from this report.

DECISION HISTORY
At its meeting of April 25, 26 and 27, 2006, Toronto City Council endorsed the Toronto Pandemic Influenza Plan. A revised version of the plan, now titled the Toronto Public Health Plan for an Influenza Pandemic, was received by the Board of Health at its meeting of October 15, 2007. At that meeting, following a discussion of jurisdictional issues related to pandemic preparedness, the Board of Health requested the Medical Officer of Health to report on the costs to-date associated with TPH's pandemic influenza planning activities and the current and projected costs of supplies and equipment. At its meeting of December 4, 2007, the Board of Health requested the MOH to report on jurisdictional issues which are barriers to pandemic influenza planning and preparedness and the role general health promotion strategies could have in pandemic preparation (including an analysis of cost and which populations would benefit).

ISSUE BACKGROUND
Through the Ontario Health Plan for an Influenza Pandemic, the provincial Ministry of Health and Long-Term Care provides direction to local health units on their responsibilities during an influenza pandemic and the planning activities they should currently be engaged in.

As described in a report to the October 15, 2007 Board of Health meeting, TPH is responsible for the local planning and delivery of disease surveillance and reporting, health risk assessment and communications, public health measures such as case and contact investigation and management, liaison with hospitals and other agencies, the distribution and administration of antiviral medication and vaccine, supporting Toronto Emergency Management Program Committee (TEMPC) operations at the Toronto Emergency Operations Centre, and ensuring psychosocial supports.

In addition, the MOHLTC has directed TPH to lead the planning of influenza assessment, treatment and referral centres - to be known as community flu centres - and play a coordinating role in the broader health care sector in the city.

COMMENTS

A) Surveillance Update

The World Health Organization (WHO) pandemic alert phase remains at Phase 3. 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 January 24, 2008, the WHO reports a total of 353 human cases of H5N1 avian influenza and 220 deaths. So far for 2008, four cases have been reported. To date, the WHO has confirmed human infection in fourteen countries (no new countries so far in 2008).

Of the four 2008 cases affected, the median age is 31 years (range: 8 years to 34 years) and the majority are male.

All four confirmed cases with known exposures in 2008 are believed to have acquired their infection following contact with diseased birds.

The case fatality rate in 2008 for confirmed cases varies by country, ranging from 67% (Indonesia) to 100% (Viet Nam), with an overall rate of 75% so far. It is too early in the year to compare to previous years, which have averaged an overall case fatality rate of 60.1% (range 33%-100%).

Animal Cases

From January 2003 to January 2008, a total of 61 countries have identified highly pathogenic H5N1 infection in domestic and/or wild birds. There have been no cases identified in Canada. Since the last report the Republic of Benin in West Africa has reported a first case of highly pathogenic H5N1 in domestic bird populations.

B) Federal and Provincial Developments

In December 2007 The Council of Canadian Academies produced a Report of the Expert Panel on Influenza Transmission and Personal Protective Respiratory Equipment in response to a request from the Public Health Agency of Canada. This Panel was asked to focus on the modes of influenza transmission between people and the protection provided by surgical masks and N95 respirators.

The Panel's report is one of the inputs to be considered by a national committee in developing the next iteration of the Canadian Pandemic Influenza Plan infection control annex.

TPH staff have met with the City's Occupational Health and Safety staff to discuss the implications of the report and help organize another expert panel to address the City's Joint Occupational Health & Safety Committee. It is important to recognize that there

are many unknowns and, as new research results become available, the recommendations may change.

The report of the Provincial Auditor released December 11, 2007 included a section on outbreak preparedness management, which focused primarily on the readiness of the MOHLTC to respond to an influenza pandemic. Some of the Auditor's findings and recommendations reflect concerns expressed by the Board of Health and TPH staff. The report brings into focus some of the most important issues which need to be resolved in order to properly prepare the City of Toronto and other communities in Ontario for an influenza pandemic:

- inability to obtain physician information
- inconsistencies, inaccuracies and delays in entering data into the provincial information system, iPHIS
- need to connect the laboratory information into iPHIS
- lack of understanding among public health units and health care providers about respective roles
- no guidelines for elements of delivery and administration of antivirals e.g. security, transportation, and monitoring of drug distribution
- need for alternative arrangements if it is likely that certain local public health units will not have established the required assessment centres
- need for resolution of the legal issues, licensing and scope-of-practice issues, financial compensation for people working in these assessment centres, and the division of funding roles and responsibilities between the Ministry and municipalities
- the need for the Ministry to test the communications strategy with the health system and the media.

C) Toronto Public Health Planning & Preparedness

In general, all public health programs and services aim to promote and protect the health of the population, which should strengthen resilience to infection. Although everyone will be susceptible to the pandemic influenza strain by definition, the severity of infection will depend on a number of factors including the epidemiology and virulence of the virus, individual access to required health care and the general health status of the population. In addition, TPH will continue to actively promote infection control measures such as hand hygiene and cough etiquette to reduce the transmission of influenza.

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.

The TPH Pandemic Influenza Planning Team is comprised of 7 FTE's working on various aspects of planning and preparedness. In 2007, flu centre planning and health sector coordination required approximately 1.4 FTE.

In addition, in 2007, TPH purchased the majority of supplies and equipment required for a four-week stockpile of infection control supplies and personal protective equipment, as directed by the MOHLTC, at a cost of $643,200 (80% provincial, 20% municipal). The only item to be stocked in 2008 is environmental supplies (e.g. hand soap, disposable towels, surface cleaning products) for a four-week period.

D) Issues Associated with TPH Roles

Most of the responsibilities assigned to TPH related to pandemic preparedness and response fall clearly within the jurisdiction of local public health units. Operating vaccination clinics, providing disease surveillance and reporting, implementing public health measures and crisis communications during a pandemic would be logical extensions of TPH's normal functions. Planning for the provision of these functions during the pandemic is well under way. However, some significant issues remain outstanding in these areas which require resolution at the provincial level.

With respect to surveillance, the provincial government has not yet defined minimum information requirements during a pandemic. The current provincial communicable disease system, iPHIS, does not meet the needs of public health to manage an influenza pandemic. The public health laboratory information system is not connected to iPHIS. There remains an inability to communicate electronically with community physicians and other health care providers in a timely fashion during an emergency.

There are, however, two major roles assigned by the MOHLTC that are beyond public health's normal mandate and will be very challenging to fulfill: the planning for the implementation of community flu centres and the coordination of the health care system response.

Providing Assessment and Treatment

The operation of community flu centres during a pandemic is one of the most challenging of the roles which TPH is currently expected to play. The centres would offer assessment, treatment and referral for persons ill with influenza during a pandemic. As currently envisaged, they would also be the primary means of distributing antiviral medications.

For the past year, TPH and its community partners have been developing, as directed by the MOHLTC, an operational plan for community flu centres. The draft plan was endorsed in principle by the Pandemic Influenza Advisory Group on May 11, 2007 and presented to the July 9, 2007 meeting of the Board of Health. Staff have continued to plan the clinic logistics, including staffing requirements. This work has confirmed some of the problematic aspects of flu centre operation.

The provision of primary health care is clearly outside the traditional mandate and experience of a local public health unit. Establishing multiple assessment and treatment facilities within a short period of time will be very challenging for TPH. The challenges include: identifying locations for the flu centres; staffing the centres; ensuring that equipment and supplies are accessible at the time that they are needed; unresolved issues regarding scope of practice, liability insurance, disability insurance and compensation; lack of a fully developed real-time information system; challenges created by communicating a message of " stay home when ill" while concurrently advising commencement of antiviral medication within 12 to 24 hours of symptom onset. Each centre will require approximately 85 staff per shift (two shifts per day, seven days per/week).

There may be better options than the establishment of large-scale facilities for the efficient distribution of antiviral medications required for treatment. The existing primary care infrastructure is more likely to be able to ramp up treatment services quickly in the time of a pandemic. The United Kingdom is planning for telephone authorization of anti-viral medications. The MOHLTC has indicated that the federal and provincial governments are investigating regulatory issues regarding potential access to these medications without a prescription. The MOHLTC is forming a new workgroup to focus on early treatment options and will seek local public health unit representation.

Toronto Public Health will continue to work with stakeholders in the health care system and with MOHLTC officials to determine the most effective means of providing assessment and treatment for influenza during an influenza pandemic.

Health Care System Coordination

The Ministry has also assigned local public health units the responsibility for engaging all aspects of the health care system in planning activities, including stakeholders from hospitals, long-tem care homes, emergency medical services, community-based service providers, and public health laboratories. This includes "assessing the capacity of local health services, including health human resources, and helping health services identify additional/alternative resources" (OHPIP 2007).

This role falls well outside the mandate of local public health units, which have no authority over the other parts of the health care system and no funding to do this type of work. In May 2007 TPH surveyed local health care providers and then hosted a meeting of health sector representatives in June. That meeting identified four key needs for coordination:

1) Enhanced communication between TPH and health care facilities and providers.
2) Local-area planning to identify and resolve local issues.
3) Enhanced inter-sectoral planning to bring together the various components of the health care system.
4) Broadening the anticipated scope of treatment at community flu centres to include vulnerable populations such as pregnant women, immuno-compromised individuals and the homeless.

TPH convened meetings with representatives of specific health care sectors throughout the fall (e.g. laboratories, pharmacies) and is now convening local intersectoral meetings in order to identify and strategize regarding issues of mutual concern. In addition, TPH is developing a regular e-mail update focused on health system coordination and pandemic influenza which will be disseminated shortly to health sector stakeholders including but not limited to hospitals, long term care facilities, community care access centres, LHIN's, Emergency Medical Services and community health centres..

In the long-run Toronto Public Health is not the agency best suited to coordinate health-care-system response within the City of Toronto. In Vancouver where a regional health authority structure is in place, the planning and preparedness and health system coordination for pandemic influenza is more advanced. In Ontario, the Local Health Integration Networks (LHINs) were recently created by the provincial government to coordinate health care planning and funding. They have accountability agreements with hospitals, long-term care, Community Health Centres, and Community Care Access Centres. There are five LHINs that cover parts of Toronto and TPH has provided regular updates on pandemic planning in Toronto to their staff. The MOHLTC has "excused" the LHIN's from pandemic planning at this time. However, as the LHINs become more established, they should be encouraged to assume full responsibility for coordinating health care system response.

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SIGNATURE

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ATTACHMENT

Attachment 1: Pandemic Influenza Planning Status Update (January 31, 2008)