TORONTO

STAFF REPORT
INFORMATION ONLY

Pandemic H1N1 Influenza Update

Date:	November 16, 2009
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

This report provides an update on the H1N1 influenza pandemic in Toronto to date and the current public health response by federal and provincial governments and Toronto Public Health (TPH).

Financial Impact

Toronto Public Health (TPH) is reallocating resources from all parts of the organization that are both cost-shared and 100 percent funded by the Province. In addition to these resources, the Ministry of Health and Long Term Care provides 100 percent provincial funding of $10 per dose of H1N1 vaccine administered by local public health units. The Ministry has stated that extraordinary costs to address H1N1 over and above the per-dose funding for vaccination will be reimbursed by the provincial government. Examples of extraordinary costs include new temporary staff that are hired to assist with H1N1 activities; overtime for existing staff working on H1N1 issues; H1N1-related supplies, security personnel, travel and communications; data collection and collation; and submission of immunization data to the Ministry from immunization clinics in the community that are not operated by TPH.

The Ministry has indicated that further information regarding the process for claiming costs associated with H1N1 activity will be shared with public health units shortly.

Additional 100% provincial funding has also been received from the Ministry for computer hardware to support the vaccination program ($500,000) that was included in a report to the Board of Health in October.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At the request of the Board of Health, the Medical Officer of Health has provided verbal or written updates on pandemic preparedness, and more recently on the H1N1 pandemic, at each meeting of the Board. The most recent update was provided at the Board's meeting of October 19, 2009.

ISSUE BACKGROUND

TPH has been preparing to respond to an influenza pandemic for several years, and has reported regularly to the Board on the progress of preparations. The overall response plan is outlined in the Toronto Public Health Plan for an Influenza Pandemic.

In April of 2009, a novel strain of influenza (H1N1) was first identified in Mexico. In the first wave of infection from April to August 2009, 1,965 laboratory-confirmed Influenza A cases and nine deaths were reported in Toronto.

TPH's response to the first wave of H1N1 was guided by the TPH Pandemic Plan and included surveillance, public education on flu transmission prevention and control, case investigation and management, liaison with schools and finalizing preparations for the next wave, including plans for mass immunization and flu assessment centers.

This report provides a brief overview of the second wave of the H1N1 pandemic since September 1, 2009, and the public health response to date.

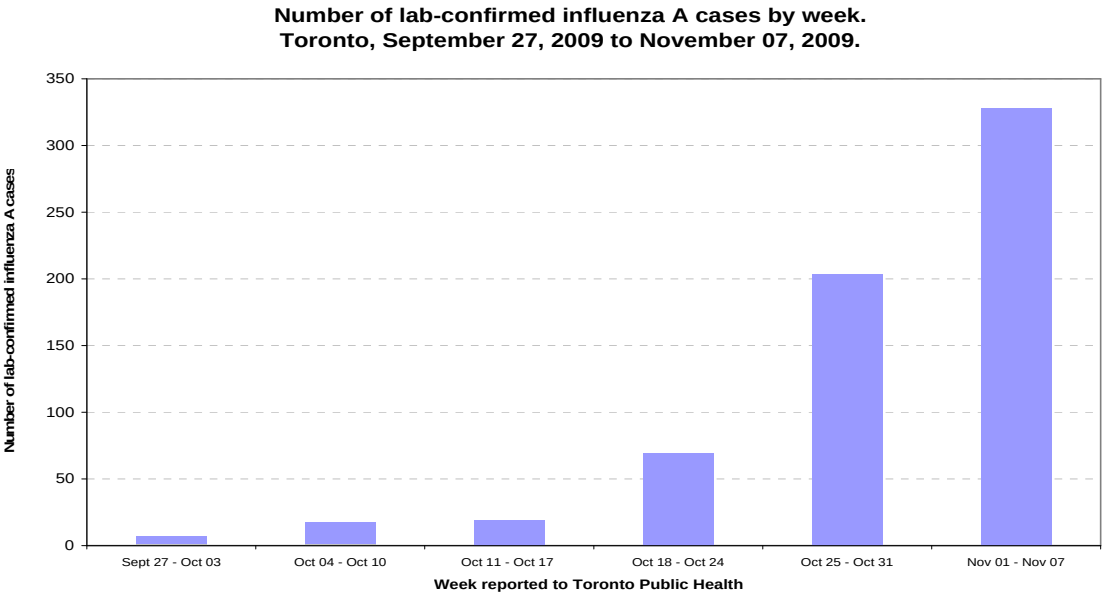
COMMENTS

Pandemic H1N1 Surveillance – The Second Wave in Toronto

Influenza is reportable disease in Ontario. At this point in the pandemic, only laboratory-confirmed cases are reported, which represent a small fraction of the total number of cases. However, they provide a picture of the progress of the outbreak. Not all cases of influenza A are sub-typed to determine if they are H1N1. Since the pandemic strain is by far the most common strain in Ontario this fall, for the purpose of the data in this report all influenza A cases are assumed to be H1N1.

From September 1 to November 12, 2009, a total of 911 cases of influenza A were reported in Toronto; 642 of these cases were laboratory confirmed as H1N1. Figure 1 depicts the incidence of reported influenza A cases by week.

Figure 1



Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [09/11/2009].
Data are provisional and may change in future reports based on updates

Of reported laboratory-confirmed cases since September 1st, 162 Toronto residents have been hopitalized and four have died.

TPH also tracks H1N1 activity through school cluster surveillance and hospital emergency room visits. Figures 2 and 3 depicts reported clusters of influenza-like illness (ILI) in Toronto schools, and emergency room visits from five Toronto hospitals. Not all emergency room visits are due to influenza, but the overall pattern of emergency room utilization is an indicator of influenza activity in the population.

Figure 2

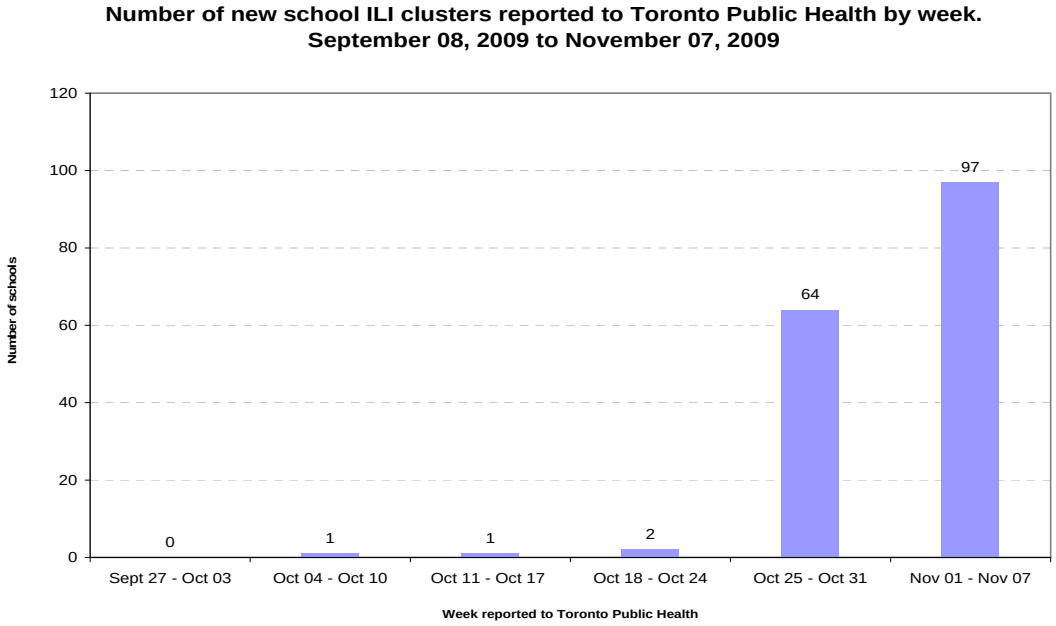
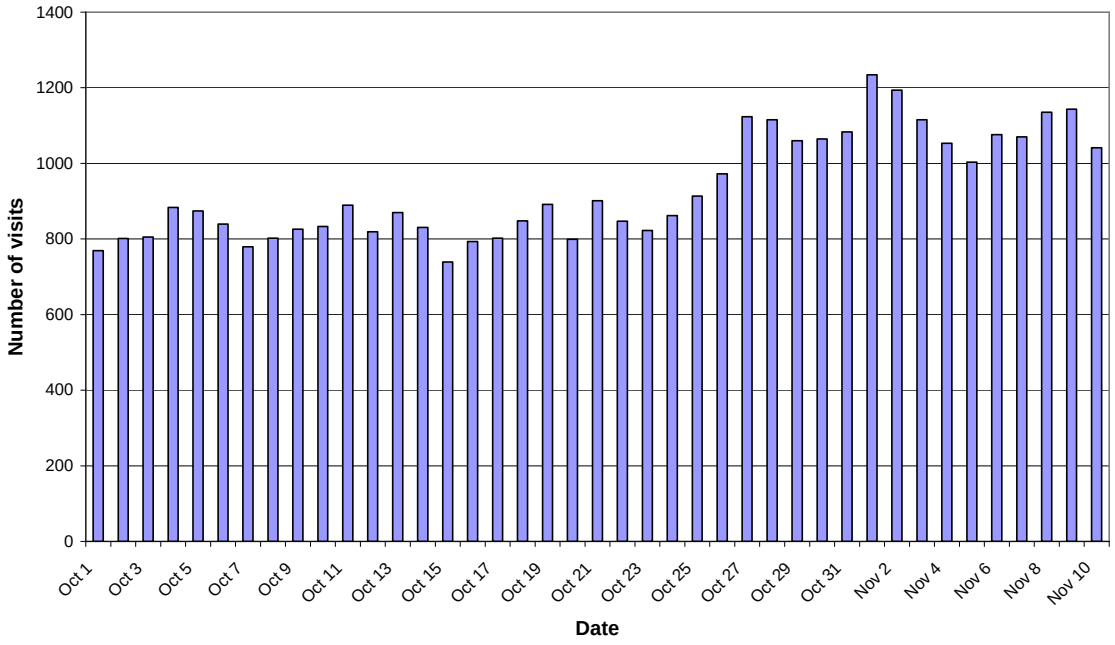


Figure 3

Emergency department visits for select Toronto hospitals by day.
October 1, 2009 to November 10, 2009



These most recent data indicate that H1N1 influenza activity continues to increase in Toronto, and does not yet show signs of levelling off or decline.

H1N1 Case Outbreak Investigation and Management

TPH completed detailed investigation of the first 100 cases of confirmed H1N1, as part of a province-wide investigation of the first 200 cases in Ontario. Currently, investigations are conducted only in the case of death or hospitalization, or when the individual is known to be pregnant. The remainder of laboratory-confirmed H1N1 cases are reported to the MOHLTC via weekly aggregate counts. In addition to investigation of Toronto cases, where appropriate, TPH provides information to other health units on their confirmed cases in Toronto hospitals. TPH has also supported the investigation and management of a small number of outbreaks in healthcare facilities/other institutions.

Public Information

Information on H1N1 is provided to the public through the TPH portion of the city website, through the media, and through telephone inquiry. General telephone inquiries are handled through City of Toronto 311 services and the TPH Toronto Health Connection (THC) line. Since September 21st a dedicated H1N1 inquiry line handles calls that cannot be answered by 311 or THC. The THC and inquiry lines recorded a total of 16,404 calls between September 21st and November 12th and the 311 line recorded 2,205 since November 3rd, when it began tracking H1N1 calls.

There is also a process for staff to respond to emails sent to a mailbox for public inquiries. The inquiries have ranged across a variety of topics with some of the most common areas being: vaccine safety, clinic hours and line-ups, current priority groups.

Since October 1st, TPH staff have responded to more than 1000 media inquiries.

H1N1 Vaccination

The federal government has a contract with a pharmaceutical company to produce vaccine for an influenza pandemic for all Canadians who need and want the vaccine, and provides regulatory approval for the use of vaccines. The Ministry of Health and Long-Term Care is responsible for distribution of vaccine to health units and policy on vaccine eligibility in Ontario. Local public health units are responsible for delivery of the vaccine in their local jurisdiction.

Mass immunization is part of the TPH plan for an influenza pandemic. However, advance plans are by necessity, developed at a high level. This is because there are many unknowns including the characteristics of the vaccine and protocols for vaccine distribution and use. These specifics are not known until close to implementation.

In September it was announced by the federal government that the new H1N1 vaccine should be expected in late November (subsequently adjusted to early November), but it was not clear how much vaccine would be available at the time of delivery. Direction was given that the vaccine would come in 500 dose packages and 10 dose vials that would have to be reconstituted, with all doses being administered within 24 hours. This vaccine format is better suited to large clinics than to family physician practices. In most flu seasons, the majority of vaccine is administered by community physicians and workplaces, and public health clinics play a relatively small role. TPH joined with others including the Ontario Medical Association (OMA) to advocate to MOHLTC to ensure that vaccine providers in the community (in particular physicians) would be able to provide the vaccine. The MOHLTC adjusted some of its requirements in response, but maintained rules that require physicians to report data to local public health units on a weekly basis, which is not the case with the regular seasonal flu vaccination program.

TPH was not able to communicate with physicians to confirm their participation in the vaccine program until necessary information was provided by MOHLTC about vaccine policies and procedures. An "invitation to participate" was sent on October 21st to all practising physicians in Toronto as well as hospitals and long-term care facilities. At about this time it was confirmed that vaccine would arrive earlier than planned, in the last week in October.

In the first week the vaccine became available, TPH planned to implement the vaccination program in two ways:

a) by distributing vaccine to Toronto's health care system – to hospitals, physicians, community health centres, family health teams, long term care facilities,

correctional facilities, etc. – so they could vaccinate their health care workers and patients in priority groups.

b) by vaccinating City of Toronto health care workers and care providers through clinics at city worksites where TPH and Toronto Emergency Medical Services would staff and operate the clinics. The TPH-operated staff clinics were eventually expanded to also vaccinate health care workers in the community.

The TPH plan for mass immunization of the public called for the opening of ten large clinics across the City in the week of November 2, the date when it was expected there would be adequate supply of vaccine to reach a wider demand. These plans were overtaken by the recognition of increasing influenza activity in Toronto coinciding with the death of two Ontario children, including a 13 year-old Toronto boy on October 26. Increased levels of public concern and intense media attention triggered the decision to make the vaccine available to priority populations earlier. The vaccination program was moved up on short notice so that several clinics originally planned only for staff and health care workers were opened for three days to accommodate members of the public. Two of these clinics were held on each of October 29 and 30, and four clinics on October 31, with heavy attendance. When the ten large public clinics opened as planned on November 2, vaccination capacity increased substantially, and waiting time for clinic attendees was greatly reduced.

The mass immunization clinic sites were chosen based on criteria that included geographic distribution across the city, accessibility of the site, and space requirements that would allow for up to 50 staff delivering vaccine safely and efficiently to up to 2000 people per day per clinic. Clinic hours have been increased to facilitate access and the ten clinics are now open seven days per week, with a total capacity to immunize up to 120,000 people per week. A number of strategies have been developed and are currently in use to reduce and manage wait times and improve conditions for both clients and staff. These include a time-ticket system which allows people to avoid waiting and return to the clinic at an appointed time, and web-based information on clinic wait times.

In addition to the ten public clinics, TPH is conducting targeted immunization clinics in a number of shelters and drop-ins that provide service to marginalized clients, many of whom have chronic health conditions, and in shelters for pregnant women and young children.

To date, TPH has provided approximately 400,000 doses of vaccine to physicians, hospitals, and other providers at over one thousand sites across the City. Almost all physicians who have asked for vaccine have received it, but usually only a portion of what was requested, in line with the vaccine supply.

When the vaccine was first available and supply issues were not as evident, most vaccine providers gave priority to those in the designated groups but showed some flexibility in vaccinating others. With the first announcement of restrictions in the vaccine supply on October 30, the provincial government directed that all providers restrict vaccination to

those in priority groups, which included people at increased risk of severe illness and health care workers. There have been media reports of a small number of cases of individuals receiving vaccine who are not in the priority groups, but the vast majority of vaccine has gone to those for whom it is intended.

On November 13 the provincial government announced that it was extending vaccine eligibility to healthy children from 5 to 13 years of age inclusive and people 65 years of age and over with chronic health conditions. TPH began vaccinating these groups immediately after the announcement, and will be promoting vaccination for children age 5 to 13 years by providing information to parents through schools beginning on November 16, in cooperation with local school boards.

Over 80,000 people have received vaccine at TPH clinics to date. Based on initial data returned by community physicians as of November 12, an estimated 130,000 people had been immunized by their physician by that point. Many additional doses have been administered by hospitals and other health facilities. Reporting by health care workers and facilities in the weeks to come will allow a more complete accounting of the extent of this large vaccination program.

Flu Assessment Centers

Flu assessment centers are part of the TPH pandemic response plan. They are temporary health care facilities which provide assessment, diagnosis, treatment and referral for people with flu symptoms. They are intended to help relieve pressure on hospital emergency departments and primary care clinics during the height of an influenza pandemic.

In Toronto flu assessment centres have been planned as a partnership of TPH and hospitals, family health teams, or community health centres. Both partners in each center provide resources and contribute to the running of the center. The decision to open a center is based on local need.

The first flu assessment center opened in Toronto on November 12, and four others are planned to open in the week of November 16. A total of nine centers may open if needed.

Stakeholder Liaison

As part of the H1N1 response, support is being provided to partner agencies in various sectors to address specific concerns, to provide current information/guidance documents, and to review and advise on infection control issues. Partners include City divisions, community health care agencies, school boards, child care centres, colleges and universities and agencies serving priority neighbourhoods. Round table dialogues have been held with Aboriginal, ethno-racial and faith communities to support community awareness and preparedness. Between the first week of October and the first week of November, more than 590 consultations were held with various partners and 180 presentations on H1N1 were made.

Impact on Public Health Services

Currently, over one thousand TPH employees from all parts of the organization are engaged in the response to H1N1. This includes approximately 67 percent of management and 54 percent of staff. Some are involved as part of their usual work, but most have been redeployed from other programs to provide services which are not their usual responsibility. This has required a massive training, scheduling and logistical effort. In addition a nursing agency has been retained to provide contract nurses to supplement TPH nursing staff in vaccination clinics and flu assessment centers.

As a result of this redeployment, there has been a significant impact on public health services. Decisions on how to implement temporary service reductions have been largely based on the impact of services on public health, level of risk to the client, family or community and availability of skilled staff to deliver specific services. Service levels across the range of TPH programs have been affected. For example, the following services have been suspended during the H1N1 response:

- Sexual health clinics at Jane Street and the Etobicoke Civic Center
- Immunization school assessment program
- Inspections of personal service settings
- Inspections of low risk food premises
- Tobacco legislation compliance inspections in workplaces, public places, schools and hospitals
- Injury prevention and substance use prevention programs
- School health promotion
- Workplace health promotion
- Healthy Babies Healthy Children home visiting
- Parenting education programs
- Healthiest Babies Possible Program
- Peer Nutrition Program
- Investing In Families Program
- Dental and oral health programs at collective living centres

Service levels will return to normal as soon as possible after redeployment of staff to the H1N1 response is ended.

CONCLUSION

The H1N1 pandemic has caused extensive illness in Toronto since it first appeared in April 2009. Fortunately, severe illness and mortality are relatively uncommon. The virus continues to circulate in Toronto during a second wave of infection. TPH has mobilized an extensive response, including an unprecedented vaccination program.

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