To: Mayor and Members  
Board of Health  

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Re: Fall Pandemic H1N1 Influenza Preparedness BOH09028 (City Wide)  

Council Direction:  
N/A  

Information:  
The purpose of this report is to update the Board of Health on Public Health Services’s (PHS) fall pandemic H1N1 influenza (pH1N1) preparedness measures.  

Executive Summary:  
Significant time and resources have been dedicated to the PHS response to the pH1N1 pandemic and continue to be dedicated to prepare for the subsequent response required in the fall.  

PHS reviewed its response to the pandemic and is implementing lessons learned to improve its response and preparedness for this fall’s flu season. In order to better respond, PHS is:  

- continuing to enhance its surveillance  
- preparing for multiple large scale seasonal flu and pH1N1 immunization clinics  
- implementing new technology to support surveillance of the virus, communication to community partners and efficient running of immunization clinics  
- training approximately 120 nurses and support staff to be redeployed to run immunization clinics, manage increased caseloads, support reporting to the Ministry, provide on-site N-95 respirator fit testing to redeployed PHS staff  
- partnering with the school boards to ensure that 90,000 school aged children and their families receive important information about what to do about pH1N1 and to enhance infection control practices at Hamilton schools
• updating its continuity of operations plan to identify which programs, services and organizational initiatives may or will be postponed or temporarily discontinued to ensure an effective pandemic response.

Some programs and services will and are being scaled back to respond to the pandemic. PHS will ensure that alterations to services are communicated to key stakeholders.

We will continue to communicate with the Board of Health as additional service and financial impacts are identified.

Background:
In June 2009, the World Health Organization (WHO) declared a world pandemic (Phase 6) in relation to the pH1N1 virus. It is the highest level, indicating that a global pandemic is underway. Moving the pandemic phase from level 5 to a level 6 in the WHO’s pandemic alert system does not mean the virus is any more lethal, it only means that the spread of the virus is considered unstoppable. Level 6 pandemic alert acknowledges the person-to-person spread worldwide and has spurred government spending to combat the first global flu epidemic in 41 years.

The coordinated response to pH1N1 requires collective response capacities and coordinated activities from local health agencies and from the federal/provincial/territorial Ministers of Health. The goal of pandemic response is to anticipate problems, monitor for adverse outcomes and respond to minimize the impact of pH1N1 within the city of Hamilton. During the response phase of the pH1N1 pandemic, PHS followed guidelines from the Ontario Ministry of Health and Long Term Care (MOHLTC) and the Public Health Agency of Canada.

During the first wave of this pH1N1 pandemic, PHS worked closely with local health providers, federal and provincial ministries to monitor pH1N1 activity. The pH1N1 virus caused levels of illness similar to seasonal influenza. The vast majority of people with pH1N1 experienced mild to moderate illness and have recovered fully without treatment. As of September 9, 2009 there have been 142 confirmed pH1N1 cases and 3 deaths in the city of Hamilton. Overall, the spread of pH1N1 in Hamilton has been well contained and supports the evidence that the virus is mild in nature.

Learning from the initial response
During the first wave of pH1N1 pandemic, Public Health Emergency Control Group was activated using the Incident Management System (IMS). Meetings were held daily as PHS collaborated with health agencies to respond to the pH1N1 pandemic. During the recovery phase all public health employees and the Pandemic Influenza Steering Committee completed a debriefing and evaluation of the initial response. The results of the evaluation provided valuable feedback that has been used to continue the response and ongoing planning throughout the summer. Initiatives that worked well during the response included:

- regular updates and daily telephone conferences with the Pandemic Influenza Steering Committee and MOHLTC
- daily updates to the media to keep the public informed
- coordinated response within PHS
- regular communications to City employees including the Senior Management Team
- a functional Public Health Emergency Operations Centres
- implementation of the IMS

There were lessons learned during this initial response, which included the need:
- for more training and exercises to solidify roles and responsibilities using the IMS
- for more dedicated resources for information technologies systems (i.e. IP phones, blackberries and increasing the capacity for telephone conferencing and information lines)
- for more dedicated human resources for services that had a surge demand i.e. public information officer, outbreak and case management personnel, administrative support for the Incident Commander and Section Chiefs
- to ensure essential services continue with trained alternates to provide these services
- for additional management resources and backfill of positions for Directors and Managers who are involved in the response and managing their division
- to ensure City Departments and community agencies are prepared

Moving Forward

Although we do not know the evolution of the pH1N1 virus, PHS continues to plan and prepare for another wave. All public health programs have been prioritized to ensure the continuity of essential services and to meet the demands for pandemic services. Services that have a surge demand such as the Surveillance Unit, the Infectious Disease Team, the Vaccine Preventable Disease team, and the Public Information Officer have coordinated their services with the community to ensure an integrated approach to pandemic preparedness and response within the Hamilton community.

Surveillance:

The PHS Surveillance Unit continues to analyze pH1N1 activity from a global, national, provincial and local perspective. They continue producing weekly surveillance reports which are shared with local health partners and federal and provincial governments. Current surveillance initiatives include:
- Case reporting
- Outbreak surveillance
- Laboratory testing for viral respiratory illness
- Physician reporting of influenza-like illness (ILI)
- Absenteeism reporting – daycares, schools, workplaces

Additional surveillance initiatives under development include:
- Febrile respiratory illness (FRI)/ILI screening by EMS
- Health care worker absenteeism reporting from the hospitals
- McMaster University, Faculty of Science illness reporting
- Acute Care Enhanced Surveillance Project reporting emergency department visits and hospital admissions

PHS continues to report internally and externally to health care providers the following surveillance information:
- Health Sector Update – sent to the Health Sector Emergency Response Committee
- Weekly Health Care Surveillance Summary - sent to emergency departments and travel physicians
- Weekly Influenza Activity Report - broad distribution by email and posted on web
- Daily Outbreak Bulletin – sent to Long Term Care Homes, EMS and Hospital Infection Control Practitioners.

**Immunizations and Case Management:**

The Infectious Disease team is working to ensure the response to pH1N1 cases and outbreaks in the community are coordinated and efficient. Staff have been redeployed and trained in case and outbreak management.

Vaccinations are a primary means of preventing the spread of infectious diseases. The Vaccine Preventable Diseases team is planning two vaccination campaigns. The Seasonal flu vaccine will be delivered in early autumn. The pH1N1 vaccine will be delivered in late autumn likely as a two dose series. The supply of vaccine will be distributed via the MOHLTC to all health units and PHS will follow the ministry guidelines regarding distribution of the vaccine. The coordination required to provide these mass vaccination clinics is an enormous undertaking. Supplies and human resources required to delivery the mass vaccination clinics will require a coordinated effort from multiple City Departments. PHS is awaiting key decisions from the MOHLTC regarding its vaccine distribution policies to finalize its planning for these clinics.

PHS will be acquiring additional leased space to accommodate the storage of pandemic supplies and vaccine refrigerators.

**Use of Technology to support Pandemic Planning and Response:**

PHS is working with the City’s Information Services Department and partner organizations to implement technology in the areas of surveillance, clinic operations and alerts distribution system.

The Acute Care Electronic Surveillance (ACES) project has created a new, near-real-time method for monitoring infectious disease trends in Hamilton. Symptoms reported by hospital emergency department patients will be entered in this computer-based analysis program. If the patient's symptoms match any of the predefined infectious disease syndromes, an automatic alert will be issued through ACES to PHS. Data from all four local emergency departments and the urgent-care centre will be automatically
Implementation of the Clinical Events Management System (CEMS) will provide an innovative, mobile computer-based system for managing immunization clinics. This tool was developed by Niagara Regional Public Health for managing community-based seasonal flu clinics. Client data is scanned using card readers into an ACCESS reporting database. With the support of the MOHLTC, CEMS will be introduced and adapted to support mass pH1N1 immunization clinics in fall 2009. In 2010, CEMS will be used for the seasonal flu campaign, and offer improved record keeping and administration.

Implementation of the ALERTS distribution system has improved the efficiency and effectiveness of the process for distributing urgent communiqués from to external stakeholders including media, doctors, dentists, hospitals, clinics, schools, residential care facilities and other organizations. Health Protection Division is responsible for issuing alerts regarding public health hazards such as smog, heat, cold, disease outbreaks, food-borne illnesses, water contamination, and consumer product safety. The ALERTS distribution system offers email, fax, text messaging and/or voicemail to predefined stakeholder contact lists that can be pre-programmed for the preferred method of each stakeholder. It can also interface with GIS to create stakeholder contact lists. Messages are automatically re-issued to stakeholders who were not reached in any mode.

Additional phone lines have been added to the PHS emergency operations centre and an additional hotline centre has been set up at our alternate emergency operations centre.

Communications and Outreach:

Presentations on public health measures to prevent the spread of influenza have been made to community agencies such as the school boards, colleges, universities and shelter network.

Public education campaigns include:

- Promoting hand washing facilities in schools
- Development of pH1N1 school information brochure to be distributed to all schools
- Workshops for colleges and universities including their residential facilities
- Outreach to shelters and workplaces and community agencies

Key messages include the importance of hand hygiene, respiratory etiquette and the need to remain at home if ill. Media are updated as relevant news is released. Website information is updated as pertinent information arrives and City employees and the public are kept informed of all important information regarding pH1N1.

Staff Training and Redeployment:
In order to ensure that PHS is able to immunize upwards of hundreds of thousands of Hamiltonians and implement an effective response to the anticipated fall flu season, PHS staff will be doing work that they do not normally do. In order to prepare for this, staff is receiving training in a number of areas which include:

Additional IMS model training- Based on our experience with the IMS model, we have made some changes to the structure and added management staff to the model. All members of the PHS emergency control group will be attending IMS model training this fall to further develop our competency in using the model and responding to emergencies.

Nurse training for immunization clinics- Upwards of 120 nurses are receiving refresher training in the event that they are required to be redeployed to work in the flu clinics this fall. Plans to redeploy additional staff to perform the functions of receptionist, clinic greeter, clinic lead and others are also being developed.

Data entry training to support surveillance and ministry reporting- Additional administrative staff are being trained to be able to support the increase in volume of data entry which is anticipated with the flu clinics and reporting to the MOHLTC.

Risk assessments for PHS staff have been completed and fit testing for N95 respirators have been completed on all relevant staff. We now have staff on-site that is able to provide N95 respirator fit testing in the event that other staff is redeployed to situations which require the use of the respirators.

An additional temporary Communications Officer is being recruited to assist the current Officer to provide sustainable 7 days/week support through the response to the pandemic.

Those redeployed will include staff funded 100% from non-MOHLTC programs i.e. (Child & Adolescent; Alcohol, Drug and Gambling Services; Mental Health Outreach; Healthy Babies, Healthy Children; Tobacco; and others.

**Continuity of Operations for PHS:**

In an effort to maintain services and respond to needs that arise during a pandemic response, PHS has reviewed and revised their Continuity of Operations Plan. This was done in collaboration with and using tools provided by the City’s Emergency Management Coordinator.

The objectives of the Continuity of Operations Plan specific to pandemic planning are to:
- identify programs with surge demand and services that could be altered or discontinued
- ensure that staff redeployment to surge demand programs is adequate
- ensure staff are adequately trained for redeployment
- ensure a decision-making process for redeployment is ethical, coordinated and understood by PHS staff
- ensure the redeployment process is viewed as smooth and organized by staff
ensure adequate and appropriate levels of service delivery are provided throughout the response to the pandemic

Currently, staff are reorganizing work plans to accommodate the H1N1 planning. The most significant impact at present is within Health Protection in the Infectious Diseases and Vaccine Preventable Diseases program areas. The redevelopment of the plan is also placing a significant burden on managers, with deferral or streamlining of preparation for accreditation, operational planning, and management meetings to accommodate the increased workload.

As we move into the fall, with the anticipated rise in cases and large-scale vaccination program, much more direct service delivery will likely be affected. A communications strategy is being developed to ensure that key partners or stakeholders e.g. BoH, community agencies, the public, other City Departments receive timely information regarding changes or temporary discontinuation of PHS programs and services.

Impact of Pandemic Response on planned PHS Programs and Finances:

It will not be business as usual this fall. Programs and services will be altered based on the continuity of operations plan. Key stakeholders will be notified as PHS alters its services.

To date accreditation preparation, 2010 operational planning, performance appraisals, research projects, PHIPA audit recommendations implementation and training workshops have all been scaled back for the fall.

We will continue to communicate with the Board of Health as additional service and financial impacts are identified.

Working on the Outside of PHS

The services within PHS are integrated with our city and community partners. In order to create an effective response, PHS has taken the lead on structuring the IMS model within the community health sector agencies. With the Medical Officer of Health as the Incident Commander, health agencies such Hamilton Health Sciences, St. Joseph’s Healthcare, the Public Health Laboratory, Community Care Access Centre, community Family Physicians and Long Term Care Homes will all participate under a coordinated IMS model for health sector agencies within the City of Hamilton. Positions have been assigned from these health sector agencies to provide leadership to assessment centres, health and safety issues, medical management and death surge planning. Meetings with our health sector partners have continued monthly throughout the summer and will continue throughout the fall.

The opening of Flu Assessment Centres has been addressed with the development of a Flu Assessment Centre Plan. As the family physicians offices and emergency rooms become overwhelmed with requests for services, Flu Assessment Centres will be opened within the city. Anti-viral medication will be distributed as per ministry guidelines.
Lead by the Community Emergency Management Coordinator, the development of the Community Pandemic Plan has begun with the engagement of community partners and the consultant. The plan will address community partners’ provision of services within their respective organization during a pandemic. PHS is part of the Integrated Project Team ensuring the completion of the Community Pandemic Plan.

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