



## STAFF REPORT ACTION REQUIRED

### Stockpiling Requirements for Pandemic Influenza Preparedness – Status of Ongoing Work

<b>Date:</b>	February 13, 2009
<b>To:</b>	Budget Committee
<b>From:</b>	City Manager, Medical Officer of Health, Chief Financial Officer & Deputy City Manager
<b>Wards:</b>	All
<b>Reference Number:</b>	

#### SUMMARY

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The City of Toronto has initiated the process of stockpiling essential supplies to ensure continuity of business operations should an influenza pandemic strike. These supplies include personal protective equipment, infection control products, operational supplies and antiviral medications for prophylactic purposes. As there is still an outstanding requirement to stockpile supplies, this report recommends a phased approach over 2009 and 2010 to complete the stockpiling.

The City will move to diversify its stockpile of antiviral medication for prophylactic use from 90 per cent/10 per cent to 80 per cent/20 per cent Oseltamivir (Tamiflu) / Zanamivir (Relenza). Staff will also review alternative methods of protection for City employees as part of an occupational health risk assessment process. Staff will report back on recommendations arising from the completion and analysis of the risk assessment once available and any impact on 2010 stockpiling requirements.

#### RECOMMENDATIONS

The City Manager, Medical Officer of Health and Chief Financial Officer & Deputy City Manager recommend:

1. an 80 per cent/20 per cent (Oseltamivir/Zanamivir) diversification of the City's stockpile of antiviral medications for prophylactic use in an influenza pandemic;
2. the remaining antiviral medications, personal protective equipment, infection control and operational supplies required to ensure continuity of operations for the City be purchased in two phases, 2009 and 2010;

3. the 2009 costs to purchase and store influenza pandemic supplies totalling \$6.263 million (gross) and \$2.705 million (net) included in the 2009 Recommended Operating Budget be approved;
4. the purchase of \$5.551 million in 2009 for Pandemic stockpiling requirements be held in inventory;
5. staff report back on the results of the comprehensive risk assessment and any impact on the 2010 stockpiling requirements;
6. any available funding at year-end for pandemic stockpiling requirements be contributed to the Emergency Planning Reserve Fund to ensure sufficient funding is available for ongoing replacement of pandemic supplies, and
7. the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

## **FINANCIAL IMPACT**

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The financial requirement for the City's pandemic influenza preparedness has been revised from the original estimate of \$27.450 million (included in the January 24, 2008 report from the City Manager, Medical Officer of Health, Deputy City Manager and Chief Financial Officer entitled "Stockpiling Requirements for Pandemic Influenza Preparedness") to \$17.907 million. The decrease is mainly a result of further review and analysis based on updated requirements, budget affordability and in consultation with the Medical Officer of Health. Capital costs to acquire a warehouse facility will be reviewed as part of the 2010 capital budget process. The strategy is to phase the stockpiling requirements of antiviral medications, personal protective equipment, infection control and operational supplies over 2009 and 2010.

The revised plan is summarized as follows:

<b>Financial Impact of the City's Pandemic Influenza Preparedness (\$ 000's)</b>				
<b>Stockpiling and Storing Requirements</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Total</b>
Personal Protective Equipment *	2,460	3,729	5,293	11,482
ANTIVIRAL TAMIFLU (80% application)	1,542	1,022	801	3,365
RELENZA (20% application)		800	218	1,018
Critical operational supplies (COOP Plan Requirements)			1,063	1,063
<b>Sub Total Stockpiling Requirements</b>	<b>4,002</b>	<b>5,551</b>	<b>7,375</b>	<b>16,928</b>
Warehousing Supplies, equipment & staff		712	267	979
<b>Total Gross Expenditures</b>	<b>4,002</b>	<b>6,263</b>	<b>7,642</b>	<b>17,907</b>
Emergency Planning Reserve Fund	1,542	3,558		5,100
<b>Net Expenditures</b>	<b>2,460</b>	<b>2,705</b>	<b>7,642</b>	<b>12,807</b>

\*A supply of Personal Protective Equipment was purchased in 2008 by Toronto Public Health, Long Term Care Homes & Services, Emergency Medical Services

The pandemic stockpiling requirements are phased over three years:

- Phase 1 (2008 and prior): Purchase \$1.542 million of Oseltamivir. Also, Toronto Public Health, Long Term Care Homes & Services and Emergency Medical Services had began stockpiling personal protective equipment within existing operating budgets;
- Phase 2 (2009): Purchase \$6.263 million of a four week supply of personal protective equipment, remainder of the eight week supply of antivirals for employees who as part of their job are expected to provide care to persons ill with influenza (i.e. Toronto Public Health, Long Term Care Homes & Services, Children's Services, Emergency Medical Services, Fire Services, and Shelter, Support, Housing and Administration, and TTC Wheel Trans), as well as Toronto Police Services, five week supply of hand sanitizer for all staff, and one surgical mask per employee; and
- Phase 3 (2010) Purchase \$7.642 million of the remaining four week supply of personal protective equipment and infection control supplies. In addition, an eight week supply of antivirals for Toronto Water and TTC (excluding Wheels Trans) and critical operations supplies are included in Phase 3.

Phase 2 net costs of \$2.705 million after drawing the remaining balance from the Emergency Planning Reserve Fund is included in the 2009 Recommended Operating Budget within Non Program Accounts. If an influenza pandemic does not occur in 2009, the stockpile requirements totalling \$5.551 million will be held in inventory. Phase 3 requirements in 2010 estimated to be \$7.642 million will be reviewed, and following risk assessment analysis be considered as part of the 2010 operating budget process.

With the exception of the ongoing cost of warehousing staff of \$0.136 million, all expenditures are one-time. However, as the shelf life of the antiviral medication is only 6 years and personal protective supplies have a limited shelf life estimated to be between 3 and 7 years, future expenditures may be required to maintain the stock. To ensure sufficient funding is available for ongoing replacement of supplies, this report recommends that any available funding for pandemic requirements be contributed to the Emergency Planning Reserve Fund annually. Details on the ongoing financial requirements for funding the replacement of supplies will be included in the report on the outcome of the risk assessment and the 2010 budget.

## **DECISION HISTORY**

In April 2008 City Council approved the purchase of the antiviral medication Oseltamivir (Tamiflu) in the amount of approximately \$1.5 million from Hoffman-LaRoche Ltd. for staff who as part of their work are expected to provide direct care to persons who are ill with influenza in a pandemic. At that time, the Medical Officer of Health recommended that antiviral medications be stockpiled for use as prophylaxis by employees who as part of their work are expected to provide care to persons who are ill with influenza (i.e. Toronto Public Health, Long Term Care Homes & Services, Children's Services,

Emergency Medical Services, Fire Services, and Shelter, Support, Housing and Administration). These recommendations were based on increased risk of exposure in the workplace for these staff. In addition, the City's Pandemic Influenza Steering Committee recommended stockpiling for staff providing essential services and key decision makers. They include the Toronto Police Service, the Toronto Transit Commission, Wheel Trans, Toronto Water and the Mayor and Members of Council.

The initial purchase of antivirals represents only a portion of the recommended stockpiling required to support City services should an influenza pandemic strike. As a result, City Council requested a series of reports addressing a number of outstanding issues and concerns including:

- the current recommended diversification of antiviral medications;
- an evaluation of the assumptions used to recommend an eight week supply of antiviral medications and personal protective equipment;
- how the City could begin immediately stockpiling personal protective equipment and infection control supplies;
- what alternative methods of protection should be considered and are needed for continuity of operations;
- the status of consultations with both the Federal and Provincial governments; and
- the funding options to be considered for the remaining stockpiling requirements.

The response to these requests necessitated coordination of staff from Toronto Public Health, Purchasing and Materials Management, Human Resources, the City Manager's Office and Financial Planning.

In addition, the City Solicitor was requested to report on a possible request to the federal government to enact legislation to override drug patent protection in the event of an influenza pandemic. This report, "Patent Protection and Government Use Overrides" is presented as supplementary to the stockpiling report.

## **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 that occur worldwide or over a large area, crossing international boundaries and usually affecting a large number of people. 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 three to six months to become available. Because health care services in Toronto are currently working at or near capacity, an influenza pandemic 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 there were far fewer deaths and cases attributed to the pandemics of 1957 and 1968. 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 spread in bird populations globally over the last several years. To date, there is no evidence that this virus has the ability to spread efficiently from person to person.

In order for City divisions, agencies, boards and commissions to prepare, they will need to stockpile supplies that may be required when a pandemic occurs. Failure to do so could result in the City not being able to provide services to the public during the emergency.

## **COMMENTS**

### **Evaluation of Assumptions for Eight Week Supply**

Influenza pandemics generally occur in two or more waves within the same or successive years. A second wave may occur within three to nine months after the initial wave and may cause more serious illness and deaths than the first wave. Historically, each wave lasts approximately eight weeks. It is prudent to stockpile critical supplies before a pandemic to ensure continuity of business operations and emergency response.

Major planning bodies including the Public Health Agency of Canada, Ontario Ministry of Health and Long Term Care, the U.S. Centres for Disease Control and the World Health Organization recommend stockpiling for eight weeks (one wave). It is anticipated that a vaccine effective against the pandemic strain will be available within three to six months after the strain is first identified. A vaccine effective against the pandemic strain is generally considered to be the best protection against illness. The extra costs to stockpile for a potential second or third wave outweigh the potential benefits of additional stockpiling.

### **Potential Diversification of Antiviral Medications**

Antiviral medications will be used both to treat and prevent illness during an influenza pandemic. Ontario has secured a supply of antiviral medications large enough to treat 25 per cent of the population. Currently two medications are recommended for treatment and prevention of illness due to an influenza pandemic strain in Canada. Oseltamivir (Tamiflu) is recommended for most people in a pandemic. Zanamivir (Relenza) is recommended for pregnant and lactating women and persons allergic to Oseltamivir. Diversification of the stockpile of antiviral medication provides an alternative should resistance to Oseltamivir become an issue. Current federal and provincial government antiviral stockpiles consist of 90 per cent Oseltamivir and 10 per cent Zanamivir. Both the federal and provincial governments are considering further diversification of their stockpiles to achieve an 80 per cent Oseltamivir / 20 per cent Zanamivir split. The United

States' antiviral stockpile consists of 80 -85 per cent Oseltamivir / 15- 20 per cent Zanamivir.

The Medical Officer of Health recommends an 80 per cent/20 per cent (Oseltamivir/Zanamivir) diversification of the City's stockpile of antiviral medications for prophylactic use in an influenza pandemic.

### **Antiviral Medication Stockpiling**

With respect to the adequacy of current stockpiling of antiviral medication, the Province of Ontario is stockpiling enough to treat 25 per cent of the population, which is consistent with or exceeds the treatment stockpiles of other jurisdictions. The manufacturer of Oseltamivir (TamiFlu) has recently extended the shelf life of the drug to seven years. The expiry would be six years and three months from time of delivery to the City of Toronto.

An August 2008 report by the Pan-Canadian Public Health Network Council concerning the use of antiviral medications for prophylaxis during an influenza pandemic concludes that this could be recommended to governments to:

- 1) prevent illness among individuals who had been in close contact with an infected person in the period immediately preceding the declaration of a pandemic; and
- 2) control outbreaks in closed, high risk facilities during the pandemic period.

These recommendations are premised on adoption of the corollary recommendations that emphasize the need for a comprehensive communications strategy for the pan-Canadian influenza pandemic plan, strengthened occupational health and safety measures, including infection control in healthcare delivery settings, and additional research.

Arguments against stockpiling and widespread use of antiviral prophylaxis in an influenza pandemic include:

- limited availability of data on efficacy of antivirals when used for prophylaxis;
- unknown health and safety risks of a large number of healthy people taking the drug for a prolonged period of time;
- possible development of drug resistance;
- requests by other groups to be protected and the inability of government to fulfill all the requests; and
- prophylactic medication needs to be taken throughout the entire pandemic wave thus requiring government expenditure for a large amount of a drug that may expire before it is needed.

Arguments in favour of stockpiling and use of antiviral prophylaxis in an influenza pandemic include:

- the duty of employers to take into account the precautionary principle in matters of occupational health and safety;
- it is unlikely that a supply of antivirals will be available for purchase at the time of a pandemic;

- while development of drug resistance is a possibility, it is not one that can be predicted prior to the emergence of the pandemic strain;
- City of Toronto employees may be working side-by-side with staff who have been provided antivirals by their employers; and
- antiviral medication would protect employees both when at work and when in the community, which is not the case for other protective measures such as personal protective equipment or engineering controls.

The City of Toronto has a relationship with its employees that differs from its relationship with the families of its employees. This is a significant factor in determining the different strategies used for employees and for their families. As an employer, the City has a responsibility to do its utmost to protect its employees from becoming ill as a result of their work. The Medical Officer of Health has recommended the stockpiling of antiviral medication for potential use for prophylaxis for those employees who as a result of their work will be providing direct care to people ill with influenza.

In 2008, the City purchased a portion of the recommended antiviral medications to potentially be used as prophylaxis for staff who, as part of their work, are expected to provide direct care to persons ill with influenza (i.e. Toronto Public Health, Long Term Care Homes and Services, Children's Services, Emergency Medical Services, Fire Services and Shelter, Support & Housing Administration). This goes beyond the current federal recommendations for preventive use of antiviral medications.

There is a concern that some employees may choose to share this medication with their families. Toronto Public Health is coordinating the development of a distribution plan for the medication that will include providing each eligible employee with a limited supply of prophylactic medication at any given time. As a result of this distribution plan, in concert with education for employees and their families, it is hoped that the medication will be used appropriately.

The City has provided education /information to staff regarding emergency preparedness - and influenza pandemic in particular - that is helpful to both staff and to their immediate families. This includes an intranet website with information and downloadable resources and links to external websites. Two detailed updates on influenza pandemic planning were distributed to members of the Toronto Public Service and web posted in 2007 and 2008. The MOHLTC has indicated that the next iteration of the Ontario Health Plan for an Influenza Pandemic will include information on precautions to be taken by family members providing care at home for people with influenza. The Toronto Public Health Plan for an Influenza Pandemic will be updated when new information is available.

### **Alternative Methods of Protection**

The Ontario Health Plan for an Influenza Pandemic states that all employers should conduct risk assessments in consultation with their joint health and safety committees. A working group of the City's Occupational Health and Safety Coordinating Committee is preparing a guidance document to assist divisions in conducting health and safety risk assessments for the purpose of influenza pandemic planning. This risk assessment guide

will identify factors to consider and occupational health and safety measures and infection prevention and control measures that can help protect workers from exposure to the influenza virus.

Protection of workers is best achieved using a hierarchy of controls:

- engineering controls that make the work environment or setting safe;
- administrative controls that minimize employees' exposure through scheduling and organizing work tasks differently; and
- personal protective equipment (e.g. hand hygiene supplies, masks, respirators).

Application of the appropriate controls is dependent on several factors including:

- the means by which influenza is spread;
- whether employees as part of their work are expected to provide care to persons ill or suspected of being ill with influenza;
- frequency and duration of employee contact with the general population;
- the availability, effectiveness and integrity of existing engineering controls such as:
  - physical barriers in waiting areas, plastic shields at counters
  - space for keeping employees at least two meters away from people with influenza
  - availability of equipment such as sinks, towels, sanitizers and soaps
  - surfaces that are easy to clean and appropriate cleaning procedures
  - good ventilation
- the availability of administrative controls such as:
  - managing people flow to keep those with influenza separate from those who have no symptoms
  - screening policies and procedures for influenza-like illness
  - policies that encourage ill employees to stay home
  - social distancing procedures that minimize face-to-face contact (e.g. meetings by e-mail or teleconference, working from home, staggered work shifts)
  - Processes for handling and cleaning of equipment and surfaces
- knowledge and training of potentially exposed employees (e.g. hand hygiene, routine practices, droplet and contact precautions, airborne precautions); and
- changes to work flow and staffing anticipated during a pandemic that may impact any of the above.

The risk assessment guide will assist divisions in identifying the level of exposure risk, factors dictating the level of risk and control measures to be considered for each job. The guide will be available following approval by the Influenza Pandemic Steering Committee.

In the interim divisions provided information on counter services needed for the continuity of essential services. The U.S. Occupational Health and Safety Administration's occupational risk pyramid for influenza pandemic defines medium exposure risk as situations where employees have high frequency contact with the general

population. Evaluation of using plastic shield barriers at counters is appropriate on the basis of this level of risk assessment.

Twelve divisions identified that they have counter services that are needed for the continuity of critical services. A few of these divisions, Employment & Social Services, Court Services and some locations of Solid Waste Management and Toronto Public Health already have a form of plastic shield or similar barrier. Several other divisions indicated that it would be feasible to install such a barrier subject to some design considerations. In some areas however divisions indicated that it would not be operationally feasible to install a plastic shield barrier. In these cases alternative control measures would have to be evaluated as part of the more comprehensive overall risk assessment.

It is recommended that staff report back on the results of the comprehensive risk assessment once complete and any impact on the 2010 stockpiling requirements.

### **Status of Work with Provincial and Federal Governments**

In early spring of 2008, the City of Toronto requested assistance from the Federation of Canadian Municipalities (FCM) to have the issue of influenza pandemic planning on the FCM's Standing Committee on Community Safety and Crime Prevention.

As a result, FCM established a staff working group on pandemic preparedness with member municipalities from across Canada including Toronto, Montreal, Vancouver, Calgary, London, Regina, Mississauga and Edmonton. The FCM's preliminary examination of the issue revealed a gap in municipal involvement in the federal planning process. As a result, FCM agreed that pandemic planning should be a focus of FCM's advocacy over the coming years.

### **Current Status**

A federal/provincial/territorial group, the Pandemic Influenza Preparedness Health Operations Coordination Working Group (PPHOC) provides leadership in coordinating operational planning in order to implement specific elements of the Canadian Pandemic Influenza Plan for the Health Sector.

On December 14, 2008, the FCM, together with staff from Toronto Public Health and Brampton's Emergency Management Office appeared before the PPHOC. This was the first time the municipal sector was formally invited to provide input into the development of the Canadian Pandemic Influenza Plan.

Through its submission, the FCM together with the City of Toronto identified several challenges that limit the effectiveness of the current pandemic planning regime. To begin addressing these challenges, the FCM proposed that the federal government implement a national strategy that focuses on protecting health care workers and essential public service providers with the following elements:

1. Partnership: Local governments should be identified as a key partner in pandemic planning. An effective pandemic response is largely dependent upon core municipal services being in place. Without these services — including water and transit—the entire response system is jeopardized.
2. Funding: Funding for emergency preparedness and pandemic planning should be secured from sources other than the property tax base. As a first step, FCM urges the Government of Canada to increase funding under the Joint Emergency Preparedness Program (JEPP). The annual \$8.4 million currently made available nationally through JEPP barely scratches the surface.
3. Adequate stockpiles: FCM urges the Government of Canada to stockpile antivirals for at least twenty-five percent of its population, to begin to meet estimates for both treatment and for prophylaxis needs. Currently, Canada has the second lowest antiviral stockpile of any G7 country, covering only 17 per cent of the Canadian population. This stockpile is for treatment purposes only.
4. Recognition of urban and rural needs: Any national pandemic strategy should recognize the unique needs of Canada's large urban centres as well as the challenges faced by rural, remote and northern regions. While Canada's larger cities face increased responsibilities with regard to pandemic planning, rural, northern and remote communities are presented with unique challenges in that they run the risk of being excluded or minimized in discussions of pandemic planning and data sharing.
5. National human resource guidelines: Guidelines should be in place to ensure a uniform national human resources strategy for all front-line public service providers, including municipal workers. An effective national response to a pandemic is dependent upon core municipal services. Guidelines should assist local governments in developing a human resources strategy.
6. Access to information: Data sharing protocols should be clarified and finalized. Municipalities must have access to data collected from other orders of government to ensure an efficient local response. An effective municipal response is dependent upon ready access to information from other orders of government. The federal government should take the lead in establishing an early detection and national reporting system.
7. Communications strategy: The federal government should implement a comprehensive communications strategy with input from provinces, territories, and local governments, through the FCM. A comprehensive communications strategy would enable all orders of government to better manage diverse forms of information and communication.

#### Next Steps:

The presentation to PPHOC will help inform the ongoing work of this group. The FCM submission has produced a report that will be publicly released in March at the FCM Board meeting in Victoria. FCM will continue working closely with PPHOC as they

move forward in the development of the Canadian Pandemic Influenza Plan. Staff will continue to update City Council on the progress of ongoing discussions as required.

Toronto Public Health staff continue to participate on the provincial Pandemic Influenza Steering Committee and its subcommittees and working groups. However, to date there has been no financial commitment from either order of government to assist municipalities to meet preparedness requirements.

### **Procurement and Stockpiling Requirements**

#### **2008 Investment**

At its meeting of April 28 and 29, 2008 Council adopted the motion that antiviral medication Oseltamivir (Tamiflu) in the amount of \$1,541,719.00 be purchased from Hoffman-LaRoche Ltd. for staff, who as part of their work, are expected to provide direct care to persons who are ill with influenza as well as City Council and the Toronto Emergency Management Program Committee. This initial purchase of Tamiflu covers a portion of the recommended stockpile for Toronto Public Health, Emergency Management Services, Long Term Care Homes & Services, Fire Services, Children's Services, Shelter, Support and Housing Administration, Members of Council and members of the Toronto Emergency Management Program Committee.

Several divisions including Toronto Public Health, Long Term Care Homes & Services and Emergency Medical Services have begun to stockpile personal protective equipment and infection control supplies such as N95 masks, hand sanitizer, nitrile gloves and disposable gowns. The value of personal protective equipment and infection control supplies already stockpiled by divisions is approximately \$2.46 million.

Total investment in 2008 for influenza pandemic preparedness in various parts of the City was approximately \$4.002 million.

#### **Remaining Requirements**

The remaining antiviral medication for staff in Toronto Public Health, Long Term care Homes & Services, Emergency Medical Services, Children's Services, Shelter Support Housing & Administration, Fire Services, TTC Wheel Trans, as well as Toronto Police Service will cost approximately \$2.8 million.

The cost to purchase the remaining personal protective equipment for staff who as part of their work are expected to provide direct care to persons who are ill with influenza (as outlined above) as well as the purchase of infection control supplies for all staff is approximately \$9.02 million.

Stockpiling of critical operational supplies such as copy paper, paper products, cleaning supplies, ice melting agents, and disposable plates and cutlery is also required to support vital functions across divisions, agencies, boards and commissions. The value of critical operational supplies still to be stockpiled is \$1.06 million.

The cost to warehouse these supplies, based on staff analysis and the development of the purchasing and warehousing strategy is approximately \$.979 million.

The total outstanding cost to both stockpile and store the remaining supplies for influenza pandemic preparedness is \$13.9 million. Although it is preferable to stockpile all of the remaining requirements in 2009, given the City's financial constraints and the lack of funding by other orders of government the City will have difficulty funding these remaining stockpiling requirements in 2009. Proceeding with partial stockpiling is not ideal but in discussions with the Medical Officer of Health and his staff it is clear that the City should begin to prepare to the extent possible in 2009. As such this report recommends a plan to purchase the remaining stockpile of supplies between 2009 and 2010.

#### Recommended 2009 Purchase of Supplies and Storage Space Requirements

The remaining antivirals for Toronto Public Health, Toronto Long Term Care Homes & Services, Children's Services Emergency Medical Services, Shelter Support Housing and Administration and Fire Services will be purchased in 2009. The Influenza Pandemic Steering Committee recommended that essential staff in the Toronto Police Service, Toronto Water and TTC including Wheel Trans, be provided antiviral medication. In 2009 antivirals will be purchased for the Toronto Police Service and Wheel Trans. In addition, a portion of the personal protective equipment such as N95 masks, nitrile gloves, disposable gowns and face shield requirements equal to a minimum of four week supply will be purchased and stockpiled in 2009 for this combined group. A supply of surgical masks equal to one mask per employee as well as hand sanitizer for all employees will also be purchased in 2009. The funding required to purchase the supply requirements in 2009 is approximately \$5.55 million (excluding warehousing costs).

In April, 2008 Council approved funding for initial warehouse set up, equipment and temporary staffing costs in the amount of \$0.606 million. This funding will be used in 2009 to purchase warehouse storage equipment, material handling equipment and distribution equipment necessary to set up the pandemic influenza storage facility as well as temporary Materials Management and Stores staff to manage and coordinate the acquisition, receiving and storage of the antivirals, personal protective equipment, infection control and critical operational supplies.

As a result of further review and analysis of stockpiling requirements the estimated storage space required to stockpile the pandemic supply has been revised from 100,000 sq. ft. to 85,000 sq. ft. Facilities and Real Estate conducted a search for City-owned facilities and found none available that would fully accommodate the estimated 85,000 sq. ft. requirement.

A revised warehouse facility search strategy was implemented to begin an external search for 65,000 sq ft of warehouse space as well as an internal search for 20,000 sq. ft. The renewed search identified a potentially suitable City-owned storage facility that no longer meets the current user's storage and office space requirements. The location would become available in 2009 and will be used to store the antivirals and supplies purchased

in 2009. There is state of good repair activities identified at the facility that is to be completed in 2009. The estimated cost of these repairs is approx \$0.106 million. Additional funding will be required to continue to provide temporary staffing in 2010.

The external search for 65,000 sq ft of warehouse space is included in a search for suitable warehouse storage space for the Toronto Police Service, who require additional warehouse space to satisfy their current and future storage space requirements. Combining the pandemic influenza stockpiling and the Toronto Police Service needs into one facility would result in process and cost efficiencies. This space will be required to stockpile the supplies being purchased in 2010. Capital costs to acquire a warehouse will be reviewed as part of the 2010 Capital Budget process.

#### Recommended 2010 Purchase of Supplies and Storage Space Requirements

Antivirals for Toronto Water essential staff and TTC frontline staff, the remaining personal protective equipment for staff who as part of their work are expected to provide direct care to persons who are ill with influenza, infection control supplies for all staff, as well as critical operational supplies will be purchased in 2010. The funding required to purchase and stockpile these supply requirements in 2010 is \$7.38 million (excluding warehousing costs).

Approx. \$0.267 million is required in 2010 to continue to provide temporary staffing for the internal facility that will become available for storage of antivirals and supplies. The external space required to stockpile the supplies will be purchased in 2010. Capital costs to acquire a warehouse will be reviewed as part of the 2010 Capital Budget process.

The combined total investment to ensure the City is prepared should an influenza pandemic strike is approximately \$17.91 million of which \$4.002 million was spent in 2008.

## **CONCLUSION**

The City of Toronto will continue the process of stockpiling critical supplies to ensure business continuity should an influenza pandemic strike. The City will move to diversify its stockpile of antiviral medication for prophylactic use from 90 per cent/10 per cent to 80 per cent/20 per cent Oseltamivir (Tamiflu) / Zanamivir (Relenza). Staff will also review alternative methods of protection for City employees as part of an occupational health risk assessment process. Staff will report back on recommendations arising from the completion and analysis of the risk assessment once available and any impact on 2010 stockpiling requirements.

To be fully prepared, the combined current and future investment by the City will total approximately \$17.91 million. As it is very difficult to wait for funding from other orders of government, the most feasible approach to ensuring continuity of business operations is to phase in the purchase of supplies throughout 2009 and early 2010.

## **CONTACT**

Joan Taylor  
Acting Director, Executive Management  
City Manager's Office  
416-392-4995  
jtaylor2@toronto.ca

Lisa Berger  
Associate Medical Officer of Health  
Toronto Public Health  
416-338-7983  
lberger@toronto.ca

## **SIGNATURE**

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Joseph P. Pennachetti  
City Manager

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Dr. David McKeown  
Medical Officer of Health

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Cam Weldon  
Acting Deputy City Manager and Chief Financial Officer